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## INTRODUCTION

### BASIC ELECTRICAL CONNECTION PRINCIPLES

#### Basic Factors:

The basic factors which influence the design and performance of pressure wire connections are as follows:

1. Creep
2. Surface Oxide
3. Corrosion

A fourth factor, known as thermal effects, is also a consideration, but due to the technical nature and length of the topic, it will not be discussed in this publication.

At the outset it should be pointed out that these factors give rise to much more difficult problems in connections involving aluminum conductors than those encountered in copper to copper connections.

### CREEP (COLD FLOW)

Creep is the cold flow of the metal under pressure, and it continues until the pressure reduces to a value at which any further creep is negligible. Creep properties depend on the particular metal or alloy and on its hardness; alloys having less creep than pure metals, and harder metals have less creep than soft metals. In a typical connection, the conductors are generally of pure metal and often of soft temper and therefore, subject to considerable creep. In addition, the condition is further exaggerated when aluminum is the conductor as compared to copper, since its creep rate is many times that of copper.

**Effect of Creep:** Figure 2 shows typical curves of total contact resistance plotted against total contact force. Curve A shows how the contact resistance continually decreases with increasing contact force. When the full contact force  $F_1$  is reached, the contact resistance reaches the low value of  $R_1$ . In general, the full tightening force on a connector greatly exceeds the maximum force for which there is no appreciable creep. Therefore the force will gradually settle down to a value after which there will be no further significant creep. Fortunately, however, the resistance does not climb back up along curve

A, the tightening curve, but instead it follows a new curve B, the relaxing curve, along which the resistance changes very little, until the force relaxes to a value such as  $F_2$ .

Admittedly, the point of "no appreciable creep" is difficult to define. For pure metals, especially in the soft state, there is always some creep, even at very low pressures at room temperature. However, we do know that the pressure required to produce the same creep rate is several times greater for copper than for aluminum. Thus, to permit the same contact force  $F_2$  for aluminum and copper, the contact area A required for aluminum can be expected to be considerably greater than that required for copper. This explains why the contact areas for connectors for aluminum must be considerably greater than for copper, and why many light duty connectors for copper are entirely inadequate for aluminum, even when specially plated and when recommended compounds are used on the contact surfaces.

**Relaxation:** Relaxation of pressure due to creep, or for any other reason, would be a much more difficult factor in a pressure connection were it not for the relationship of contact pressure to contact resistance on the relaxation curve as shown in Figure 2. It is frequently observed that some time after the bolts of a clamp type connector are tightened, the bolt tensions are relaxed appreciably. The question arises as to whether it is necessary to retighten the bolts to the original torque value. In a properly designed connector, retightening is unnecessary since the contact resistance should increase very little due to the relaxation of pressure, as shown by the relaxation curve of Figure 2.

This fact is largely responsible for the successful operation of a compression connector. The application of the compression tool applies very high pressure, establishing very low contact resistance. The removal of the compression tool releases a very large proportion of this pressure, and creep further relaxes this pressure. Fortunately, the contact resistance increases very little due to this pressure relaxation.

**Contact Force:** The previous analysis shows that the total contact force largely determines the contact resistance. Thus, to achieve the desired low value of contact resistance, the proper size and number of bolts in a clamp type connector must be supplied, and the compression tool must apply the proper force to a compression connector. In addition, the connector must be designed with sufficient structural strength, contact area, and

resilience, to assure that the contact force cannot relax beyond the point where contact resistance begins to rise appreciably, as shown in Figure 2.

### SURFACE OXIDE

The contact of pure metallic surfaces cannot be assured in practical connections. Surface contamination must be expected, especially surface oxidation. These surface films are insulators as far as contact resistance is concerned, and they must be broken to achieve metal to metal contact to make an adequate electrical connection. The difficulty of breaking the film depends on the nature of the film, its thickness, and the metal on which it is formed.

Copper oxide is generally broken down by reasonably low values of contact pressure. Unless the copper is badly oxidized, good contact can be obtained with very little or no cleaning.

Silver oxide is even more easily broken down by the contact pressure; and since silver oxide forms less readily at elevated temperatures, silver contact surfaces are preferred over copper when used for higher temperatures. For this reason, it is considered good practice to silver plate copper contact surfaces that must operate at temperatures over 200°C.

On the other hand, aluminum oxide is hard, tenacious, high resistance film that forms very rapidly on the surface of aluminum exposed to air. In fact, it is the toughness of this film that gives aluminum its good corrosion resistance. The oxide film that forms after more than a few hours is too thick and tough to permit a low resistance contact without cleaning. The aluminum oxide film is transparent so that even the bright and clean appearance of an aluminum connector is no assurance that the low contact resistance can be attained without cleaning.

In addition to the necessity for cleaning the oxide from aluminum, the surface should be covered with a good connector compound to prevent the oxide from reforming. Common practice is to clean the surface with a wire brush or emery cloth. The compound should be applied immediately after cleaning, or the compound should be put on first and the surface scraped through the compound. Present practice is to scratch brush dry and to apply the compound immediately thereafter. This allows a more thorough job of cleaning the conductor.

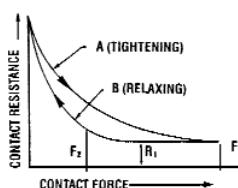


Fig. 2



## INTRODUCTION (CONTINUED)

**Contact Compounds:** Petrolatum or No-Oxid are good contact surface compounds for aluminum, but BURNDY PENETROX A, a petrolatum type compound containing zinc dust, has the additional advantage of assisting in the breaking down of the contact resistance. How this is accomplished is not certain, but it appears that the zinc particles of PENETROX A probably act as current bridges in the breaks in the oxide film. For more complete information about the PENETROX line of compounds, refer to the Accessories Section of this catalog.

**Interstrand Resistance:** The high contact resistance due to the oxide on the strands of an aluminum cable may be responsible for a poor distribution of current among the strands on the cable. Thus, the outer strands may carry much more than their share of the current and overheating of the cable may result. Tests have shown that even on new cable this effect of interstrand resistance can be considerable unless a good contact compound is used. The clamping action tends to break down the oxide and force the compound between the strands. This is particularly true of compression connectors due to the very high unit pressures developed.

The most effective way to break down interstrand resistance of aluminum cable is to use compression connectors filled with a compound having zinc particles. Then, when the end of the cable is inserted in the connector, the compound is forced between the strands where it very effectively breaks down the interstrand resistance upon application of the compressive force.

**Plating Aluminum:** Plating the contact surfaces of aluminum connectors will prevent the formation of aluminum oxide. Electro tin, cadmium and zinc platings have been used for this purpose. However, the use of a plated aluminum conductor, does not make it less necessary to scratch brush the aluminum conductor, nor does it reduce the need for a good contact compound. Additional problems are introduced due to the plating on aluminum which render it of very doubtful value over the proper use of bare aluminum. This will be more fully discussed later.

### CORROSION

The electrical conductivity and mechanical strength of an electrical connection must remain stable under the deteriorating influences of the environment. This deterioration is corrosion. It is the electrolytic action of moisture and other elements of the atmosphere in conjunction with the metals of the

connection. If the conductors and connectors are of copper or a corrosion resistant copper alloy, corrosion is usually a minor factor. However, it is a very vital factor if aluminum is involved.

If moisture can be kept away from the connection, corrosion will not be a factor. The electrical connection of a high voltage splice on insulated cable is generally free from corrosion since the taping must be moisture-proof. Similarly, taping may be used to avoid corrosion on bare cable, provided it excludes moisture. It is difficult to get a good tape seal to the conductor itself, especially on stranded cable. If moisture does penetrate the taping, it will not dry out as readily as if the joint were untaped. Various plastic materials are available today for covering low voltage connections or for bare conductor connections on high voltage. Unless such coverings are completely moisture-proof, it is better to rely on installation with a good contact compound, using a connector designed to resist corrosion.

**Galvanic Action:** Whenever dissimilar metals are in the presence of an electrolyte, a difference in electric potential is developed. One metal becomes the cathode and receives a positive charge. The other becomes the anode and receives a negative charge. When these metals are in contact, an electrical current will flow, as in the case of any short circuited electric cell. This electrolytic action causes an attack of the anodic metal, leaving the cathodic metal unharmed. The extent of the attack is proportional to the strength of the electrolytic current, which in turn is proportional to the electric potential difference developed.

The magnitude of the potential difference generated between two dissimilar metals can be seen by the position of these metals in the electrolytic series. Figure 3 is such a series. When two metals are in contact in an electrolyte, the one higher up in this series is the anode, the corroded metal, while the one lower is the cathode, the protected metal. The further apart the metals are in this series, the greater the electrolytic potential difference, and the greater the attack to the anodic metal.

Note that copper and aluminum are quite far apart in the series, copper being cathodic and aluminum anodic. Hence, when aluminum and copper are in contact in an electrolyte, the aluminum can be expected to be severely attacked.

**Crevice Corrosion:** Electrolytic attack can also occur between like metals due to a phenomenon known as oxygen concentration cell or crevice corrosion. Since oxygen is necessary for corrosive action, a variation in the concentration of oxygen where a metal is exposed to an electrolyte will generate a difference of potential, and cause a corrosive attack in the oxygen starved area. Thus, since an electrolyte in a deep crevice is freely exposed to the air at the outside, the concentration of oxygen will be greatest at the mouth of the crevice. Then corrosion can be expected to occur in the crevice remote from the surface. Crevice corrosion can be prevented if the crevice is filled with a compound to exclude moisture. Thus, within the contact groove of an aluminum connector containing an aluminum conductor, there will be numerous crevices in which corrosion will take place unless a good connector compound is applied during installation. Copper, being a more noble metal, appears to be much less subject to crevice corrosion.

**Corrosion Testing:** The effectiveness of an electrical connection to resist corrosion can be tested in the laboratory under conditions designed to greatly accelerate the natural corrosive conditions of actual service. The most widely accepted means is the standard salt spray chamber. In this chamber the specimens are placed in a salt fog made by atomizing a 20% salt solution at 100 deg F.

FCI - BURNDY Electrical as well as other manufacturers and utility companies, have done a great deal of testing and a considerable area of agreement has been reached. There are, however, minor differences in recommended practices. The problem is concerned with aluminum and aluminum to copper connections since the effect of corrosion on copper to copper connections is far less serious. Let us study the recommended practices.

**Aluminum to Aluminum Connections:** For joining aluminum to aluminum conductors, there is little disagreement that an aluminum bodied connector is the proper choice, since this obviously eliminates the galvanic corrosion of dissimilar metals. However, even in this case, care must be taken to prevent crevice corrosion and to select an alloy of aluminum for the connector body that is free from cracking due to stress corrosion.

**Aluminum to Copper Connections:** Similarly, for joining aluminum to copper conductors, an aluminum bodied connector is the best choice since it prevents galvanic



## INTRODUCTION (CONTINUED)



### MORE NOBLE (CATHODIC)

Fig. 3

corrosion of the aluminum conductor, the most vulnerable element to attack in the connection. Realizing this, BURNDY initiated a research program aimed at finding the best way to make an aluminum connector suitable for joining aluminum to copper conductors.

This lead to the evolution of the "Massive Anode Principle" of connector design for joining conductors of dissimilar metal. On the basis of this principle, properly designed, all-aluminum connectors became available for universal use in joining aluminum to aluminum or aluminum to copper conductors.

**Massive Anode Principle:** By making the aluminum connector massive in comparison to the copper conductor, when the copper conductor emerges from the connector, the electrolytic current density over the exposed face of the aluminum connector is greatly reduced. This is schematically represented in Figure 4. Since the rate of corrosion is directly related to the current density on the surface of the anodic material, the relatively large face of the aluminum connector will suffer only minor attack.

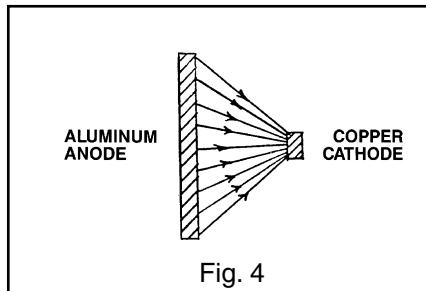


Fig. 4

In addition, because the aluminum connector body is massive in the region where the corrosion occurs, the small loss of metal caused by corrosion is insignificant, even after long periods of service. Furthermore, the connector design should be such that clamping bolts, and areas of high stress which provide structural strength, are not in the regions subject to galvanic attack.

The effectiveness of this theory has been amply demonstrated in salt spray corrosion tests in which the connectors were subject to 1000 hours in the salt spray fog with only minor corrosive pitting adjacent to the copper conductor, as seen in Figure 5. In addition, the aluminum conductor was completely protected, and the joint resistance remained virtually unchanged. The test involved a wide variety of sizes and types of connectors showing the effectiveness for small service connectors as well as large power connectors. Figure 6 shows a large all aluminum

clamp type T connector installed on 3½" diameter copper run and 750MCM aluminum tap. The figure shows this connector opened up after the 1400 hours of the salt spray test. Note that the contact surfaces are bright and clean and the only evidence is minor pitting along the faces adjacent to the copper.

\*It should be emphasized that a good compound should be used on the contact surfaces whether aluminum or copper is used in an aluminum connector.

**Position of Conductor:** A properly designed aluminum connector for joining aluminum to copper must provide adequate separation between the conductors to prevent electrolytic attack on the aluminum conductor. Even then, it is good practice to install the aluminum conductor above the copper conductor if possible. This will prevent pitting of the aluminum conductor due to copper salts being washed over the aluminum.

**Plated Aluminum Connectors:** Plating has been used as a means to make an aluminum connector suitable for copper conductor. Such platings as copper, zinc, tin and cadmium have been used. The plating of aluminum is much more critical than plating a more noble metal such as copper. In addition, a preplate, usually of copper or brass, must be applied, thus introducing numerous metals and further possibilities for galvanic corrosion.

To be effective in reducing galvanic corrosion between the copper conductor and the aluminum connector, the plated metal must be closer in the Electrolytic Series to copper than is aluminum. It must therefore, be cathodic to aluminum. Since porosity and minor scratches are always present, galvanic action can be expected in the presence of moisture, resulting in attack of the aluminum under the plating. Corrosion tests reveal attack in the form of a mottled appearance and flaking of the plating.

In addition, the presence of plated metal can cause galvanic attack of the aluminum conductor, thus reducing the protection offered to this conductor in an aluminum connector.

**Cleaning and the Use of Compound:** It should be emphasized that when aluminum connectors or conductors are involved, proper cleaning of the aluminum and the use of a good connector compound, such as BURNDY PENETROX A, are essential for trouble-free service. BURNDY, as well as other manufacturers, provide the contact grooves with a coating to make it unnecessary to clean the connectors, but in all cases, the aluminum



### INTRODUCTION (CONTINUED)

conductor should be cleaned by means such as scratch brushing, and immediately coated with the connector compound.

To simplify the application of the compound, and to assure its use, almost all BURNDY aluminum connectors, except the large clamp type substation connectors, are supplied factory filled with PENETROX compound. For the tubular compression connectors, the tubular barrels are sufficiently filled with PENETROX and capped. For other types, the contact grooves are filled with PENETROX and enclosed in plastic packaging in a process called "Stripsealing".

**Clamp vs. Compression:** In general, a compression connection can be expected to be more corrosion resistant than a clamp connection. The high pressures applied in a compression connector more effectively seal the contact against the penetration of moisture. The tubular sleeve of a compression connector has no side openings such as exist in clamp connectors between the clamping members. On the other hand, the clamp connector can be made more corrosion resistant if the conductor grooves conform more closely with the conductor contour. Thus a clamp connector made to accommodate a wide range of conductor sizes cannot be expected to be as corrosion resistant as one designed for one specific conductor size. Nevertheless, the differences in effectiveness of various designs can be minimized if a good contact compound is used.

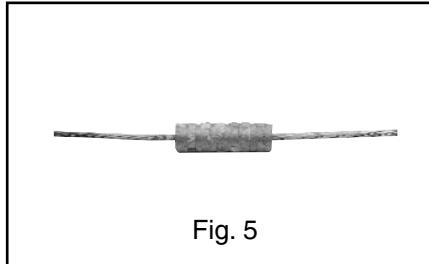


Fig. 5

Negligible Corrosion of Severe Salt Spray on Compression Connector Joining Aluminum to Copper.

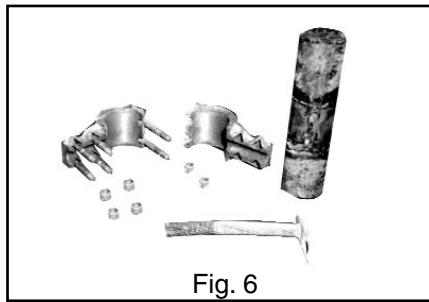


Fig. 6

Large Aluminum Bolted Connector Joining Copper Run to Aluminum Tap After Severe Salt Spray Test.



### HARDWARE DATA

#### RECOMMENDED TIGHTENING TORQUE

The hardware used in connectors must be compatible with the connector material, have high mechanical strength and be corrosion resistant.

Copper alloy connectors have hardware made of DURIUM, which is Burndy's trade name for silicon bronze alloy ASTMB99. This material was first introduced by Burndy in 1927 for use in outdoor construction, and today, is the standard throughout the industry.

Aluminum connectors generally have aluminum alloy hardware. The bolts are 2024T4 and anodized to resist corrosion. The nuts are 6061T6, which is resistant to corrosion and

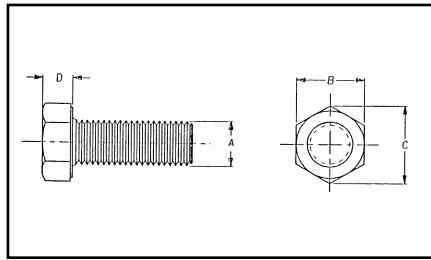
Steel Hardware		Aluminum Hardware	
Bolt Size	Recommended Torque (Inch Pounds)	Bolt Size	Recommended Torque (Inch Pounds)
1/4 - 20	80	1/2 - 13	300
5/16 - 18	180	5/8 - 11	480
3/8 - 16	240	3/4 - 10	650
1/2 - 13	480		
5/8 - 11	660		
3/4 - 10	1050		

does not require anodizing. Both nuts and bolts are lubricated to eliminate galling and to provide consistent clamping forces.

The size material for clamping hardware are selected to provide the required force when tightened to the recommended torque. To reduce or greatly exceed the recommended torque can adversely affect the performance of the connector.

#### DURIUM™ (SILICON BRONZE)

#### HEXAGONAL BOLT DATA



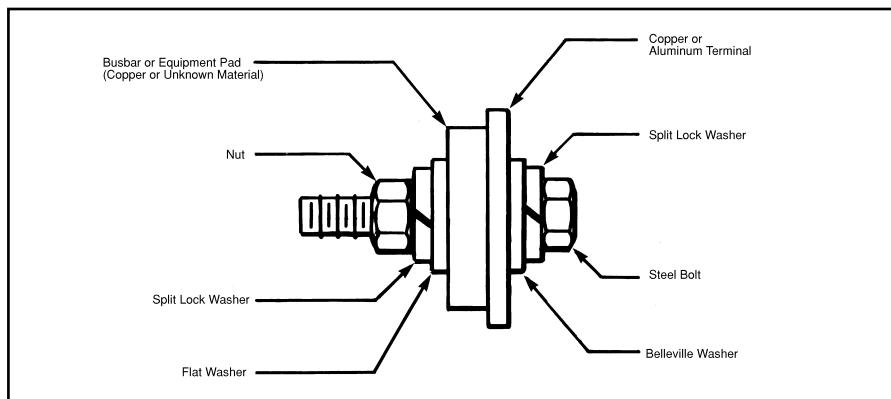
(2)

(3)

CATALOG NO. SERIES	"A" (BOLT SIZE)	"B"	"C"	"D"	RECOMMENDED TORQUE (in.-lbs.)	MIN. BREAKING FORCE (lbs.)	MIN. SHEARING FORCE (lbs.)
25X_ _ HEB	1/4 - 20 UNC	7/16	.50	.16	80	1,780	990
31X_ _ HEB	5/16 - 18 UNC	1/2	.56	.21	180	2,930	1,640
38X_ _ HEB	3/8 - 16 UNC	9/16	.65	.24	240	4,350	2,430
50X_ _ HEB	1/2 - 13 UNC	3/4	.87	.32	480	7,950	4,460
62X_ _ HEB	5/8 - 11 UNC	15/16	1.08	.40	660	12,700	7,100
75X_ _ HEB	3/4 - 10 UNC	1-1/8	1.30	.48	1050	17,510	10,540

1. MATERIAL: DURIUM™ (Silicon Bronze)
2. " \_ \_ " is substituted for bolt length. Consult sales representative for available lengths.
3. These torque values develop maximum bolt preload.
4. This drawing is based on Burndy engineering spec.

#### RECOMMENDED TERMINATION HARDWARE





## RECOMMENDED TIGHTENING TORQUE

PER UL486A AND UL486B

Test Wire Size Installed In Connector AWG or MCM (mm <sup>2</sup> )		Tightening Torque, Pound-Inches (N.m)			
		Slotted Head No. 10 and Larger <sup>1</sup>		Hexagonal Head - External Drive Socket Wrench	
		Slot Width - 0.047 Inch (1.2 mm) or Less and Slot Length 1/4 Inch (6.4 mm) or Less	Slot Width - Over 0.047 Inch (1.2 mm) or Slot Length - Over 1/4 Inch (6.4 mm)	Split-Bolt Connectors	Other Connectors
18-10	(.082-5.3)	20 (2.3)	35 (4.0)	80 (9.0)	75 (8.5)
8	(8.4)	25 (2.8)	40 (4.5)	80 (9.0)	75 (8.5)
6-4	(13.3-21.2)	35 (4.0)	45 (5.1)	165 (18.6)	110 (12.4)
3	(26.7)	35 (4.0)	50 (5.6)	275 (31.1)	150 (16.9)
2	(33.6)	40 (4.5)	50 (5.6)	275 (31.1)	150 (16.9)
1	(42.4)	-	50 (5.6)	275 (31.1)	150 (16.9)
1/0-2/0	(53.5-67.4)	-	50 (5.6)	385 (43.5)	180 (20.3)
3/0-4/0	(85.0-107.2)	-	50 (5.6)	500 (56.5)	250 (28.2)
250-350	(127-177)	-	50 (5.6)	650 (73.4)	325 (36.7)
400	(203)	-	50 (5.6)	825 (93.2)	325 (36.7)
500	(253)	-	50 (5.6)	825 (93.2)	375 (42.4)
600-750	(304-380)	-	50 (5.6)	1000 (113.0)	375 (42.4)
800-1000	(406-508)	-	50 (5.6)	1000 (124.3)	500 (56.5)
1250-2000	(635-1010)	-	-	1100 (124.3)	600 (67.8)

TABLE 7.4:

<sup>1</sup> For values of slot width or length not corresponding to those specified, select the largest torque value associated with the conductor size. Slot width is the nominal design value. Slot length is measured at the bottom of the slot.

Slot Length of Screw Inch (mm) <sup>2</sup>	Tightening Torque, Pound-Inches (N.m)	
	Slot Width of Screw Inch (mm) <sup>1</sup>	
	Smaller Than 0.047 (1.2) and Larger	0.047 (1.2)
Less than 5/32 (4)	7 (0.79)	9 (1.0)
5/32 (4)	7 (0.79)	12 (1.4)
3/16 (4.8)	7 (0.79)	12 (1.4)
7/32 (5.6)	7 (0.79)	12 (1.4)
1/4 (6.4)	9 (1.0)	12 (1.4)
9/32 (7.1)		15 (1.7)
Above 9/32 (7.1)		20 (2.3)

TABLE 7.5:

<sup>1</sup> Slot width is the nominal design value  
<sup>2</sup> For slot lengths of intermediate values, select torques pertaining to next shorter slot length. Also, see note <sup>1</sup> to Table 7.4 for screws with multiple tightening means. Slot length is to be measured at the bottom of the slot.

Socket Size Across Flats Inch (mm) <sup>1</sup>	Tightening Torque, Pound-Inches (N-m)
1/8 (3.2)	45 (5.1)
5/32 (4.0)	100 (11.4)
3/16 (4.8)	120 (13.8)
7/32 (5.6)	150 (17.0)
1/4 (6.4)	200 (22.6)
5/16 (7.9)	275 (31.1)
3/8 (9.5)	375 (42.4)
1/2 (12.7)	500 (56.5)
9/16 (14.3)	600 (67.8)

TABLE 7.6:

<sup>1</sup> See note <sup>1</sup> to Table 7.4 for screws with multiple tightening means.



### CABLE DATA

#### COPPER TUBE (BUS)

SIZE OF TUBE IPS	DIAMETER OF TUBE (Inches)		WALL THICKNESS (Inches)
	OUTSIDE	INSIDE	
<b>STANDARD PIPE SIZES</b>			
1/4"	0.540	0.375	0.082 5
3/8"	0.675	0.494	0.090 5
1/2"	0.840	0.625	0.107 5
3/4"	1.050	0.822	0.114 0
1"	1.315	1.062	0.126 5
1-1/4"	1.660	1.368	0.146 0
1-1/2"	1.900	1.600	0.150 0
2"	2.375	2.062	0.156 5
2-1/2"	2.875	2.500	0.187 5
3"	3.500	3.062	0.219 0
3-1/2"	4.000	3.500	0.250 0
4"	4.500	4.000	0.250 0
4-1/2"	5.000	4.500	0.250 0
5"	5.563	5.063	0.250 0
6"	6.625	6.125	0.250 0
<b>EXTRA HEAVY PIPE SIZES</b>			
1/4"	0.540	0.294	0.123
3/8"	0.675	0.421	0.127
1/2"	0.840	0.542	0.149
3/4"	1.050	0.736	0.157
1"	1.315	0.951	0.182
1-1/4"	1.660	1.272	0.194
1-1/2"	1.900	1.494	0.203
2"	2.375	1.933	0.221
2-1/2"	2.875	2.315	0.280
3"	3.500	2.892	0.304
3-1/2"	4.000	3.358	0.321
4"	4.500	3.818	0.341
4-1/2"	5.000	4.250	0.375
5"	5.563	4.813	0.375
6"	6.625	5.751	0.437
<b>DOUBLE EXTRA HEAVY PIPE SIZES</b>			
1/2"	0.840	0.252	0.294
3/4"	1.050	0.434	0.308
1"	1.315	0.599	0.358
1-1/4 "	1.660	0.896	0.382
1-1/2"	1.900	1.100	0.400
2"	2.375	1.503	0.436
2-1/2"	2.875	1.771	0.552
3"	3.500	2.300	0.600
3-1/2"	4.000	2.728	0.636
4"	4.500	3.152	0.674
4-1/2"	5.000	3.580	0.710
5"	5.563	4.063	0.750
6"	6.625	4.897	0.864

Tube dimensions (exempting wall thickness, of double extra heavy) taken from A.S.T.M. Specification B42-33.

Tubular values based on a density of 0.322 pound per cubic inch.

\* Conductivity of 98% I.A.C.S. at 20°C or 68°F.

#### SOLID COPPER WIRE

(ASTM B1, B2, & B3)

SIZE AWG (SOLID)	WIRE DIA Inch	HARD DRAWN	MEDIUM DRAWN	SOFT DRAWN
		NORMAL BREAKING LOAD Pounds	MINIMUM BREAKING LOAD Pounds	ELONGATION IN 10 IN. % MIN.
18	.040 30	85.76	67.61	25
17	.045 26	107.5	84.71	25
16	.050 82	135.2	106.2	25
15	.057 07	170.0	133.0	25
14	.064 08	213.8	166.6	25
13	.071 96	268.2	208.0	25
12	.080 81	337.0	261.6	25
11	.090 74	422.5	327.6	25
10	.101 9	529.2	410.4	25
9	.114 4	661.0	514.2	30
8	.128 5	826.0	643.9	30
7	.128 5	1,030	806.6	30
6	.162 0	1,280	1,010	30
5	.181 9	1,591	1,265	30
4	.204 3	1,970	1,584	30
3	.229 4	2,439	1,984	30
2	.257 6	3,003	2,450	30
1	.289 3	3,688	3,024	30
1/0	.324 9	4,519	3,730	35
2/0	.364 8	5,518	4,599	35
3/0	.409 6	6,722	5,667	35
4/0	.460 0	8,143	6,980	35

#### STRANDED COPPER WIRE

(ASTM B8 EXCLUDING BREAKING LOADS)

SIZE		A.S.T.M. STRANDINGS		HARD DRAWN	MEDIUM DRAWN	SOFT DRAWN
STRANDED		Class	No. of Wires	Cable Diameter Inches	Minimum Breaking Load Pounds	Minimum Breaking Load Pounds
Circular Mills	AWG				Minimum Breaking Load Pounds	Minimum Breaking Load Pounds
1,022	20	B	7	0.036 3	50.04	40.67
1,624	18	B	7	0.045 6	78.99	63.91
2,583	16	B	7	0.057 6	124.7	100.4
4,107	14	B	7	0.072 6	197.1	157.7
6,530	12	B	7	0.091 5	311.1	247.7
10,380	10	B	7	0.116	491.7	388.9
13,090	9	B	7	0.130	618.2	487.4
16,510	8	B	7	0.146	777.2	610.7
20,820	7	B	7	0.164	977.1	765.2
26,250	6	B	7	0.184	1,288	958.6
33,100	5	B	7	0.206	1,542	1,201
41,740	4	AA	3	0.254	1,879	1,465
41,740	4	B&A	7	0.232	1,938	1,505
52,630	3	AA	3	0.285	2,359	1,835
						1530



### CABLE DATA (CONTINUED)

#### STRANDED COPPER WIRE (CONTINUED)

(ASTM B8 EXCLUDING BREAKING LOADS)

SIZE		A.S.T.M. STRANDINGS			HARD DRAWN	MEDIUM DRAWN	SOFT DRAWN
STRANDED		Class	No. of Wires	Cable Diameter Inches	Minimum Breaking Load Pounds	Minimum Breaking Load Pounds	Minimum Breaking Load Pounds
Circular Mills	AWG						
52,630	3	B&A	7	0.260	2,433	1,885	1592
66,370	2	AA	3	0.320	2,913	2,299	1929
66,370	2	B&A	7	0.292	3,045	2,361	2007
83,690	1	AA	3	0.360	3,621	2,879	2432
83,690	1	A	7	0.328	3,804	2,958	2432
83,690	1	B	19	0.332	3,899	3,037	2531
105,500	1/0	A&A	7	0.368	4,752	3,705	3067
105,500	1/0	—	12	0.390	4,841	3,755	3191
105,500	1/0	B	19	0.373	4,901	3,805	3191
133,100	2/0	A&A	7	0.414	5,926	4,640	3867
133,100	2/0	—	12	0.438	6,048	4,703	3867
133,100	2/0	B	19	0.419	6,152	4,765	4024
167,800	3/0	A&A	7	0.464	7,366	5,812	4876
167,800	3/0	—	12	0.492	7,556	5,890	4876
167,800	3/0	B	19	0.470	7,698	5,970	5074
211,600	4/0	A&A	7	0.522	9,154	7,278	6149
211,600	4/0	—	12	0.522	9,483	7,378	6149
211,600	4/0	B	19	0.528	9,617	7,479	6149

SIZE	A.S.T.M. STRANDINGS			HARD DRAWN	MEDIUM DRAWN	SOFT DRAWN
Circular Mills	Class	No. of Wires	Cable Diameter Inches	Minimum Breaking Load Pounds	Minimum Breaking Load Pounds	Minimum Breaking Load Pounds
250 Mcm.	AA	12	0.600	11,130	8,717	7265
250 Mcm.	A	19	0.574	11,360	8,986	7265
250 Mcm.	B	37	0.575	11,560	8,952	7559
300 Mcm.	AA	12	0.657	13,170	10,390	8718
300 Mcm.	A	19	0.628	13,510	10,530	8718
300 Mcm.	B	37	0.630	13,870	10,740	9071
350 Mcm.	AA	12	0.710	15,140	12,040	10170
350 Mcm.	A	19	0.679	15,590	12,200	10170
350 Mcm.	B	37	0.681	16,060	12,450	10580
400 Mcm.	A&AA	19	0.726	17,810	13,950	11620
400 Mcm.	B	37	0.728	18,320	14,140	11620
450 Mcm.	AA	19	0.770	19,750	15,590	13080
450 Mcm.	B&A	37	0.772	20,450	15,900	13080
500 Mcm.	AA	19	0.811	21,950	17,320	14530
500 Mcm.	B&A	37	0.813	22,510	17,550	14530
600 Mcm.	A&AA	37	0.891	27,020	21,060	17440
600 Mcm.	B	61	0.893	27,530	21,350	18140
700 Mcm.	AA	37	0.963	31,170	24,410	20340
700 Mcm.	B&A	61	0.964	31,820	24,740	20340
750 Mcm.	AA	37	0.997	33,400	26,150	21790
750 Mcm.	B&A	61	0.998	34,090	26,510	21790
800 Mcm.	AA	37	1.029	35,120	27,710	23250
800 Mcm.	B&A	61	1.031	36,360	28,270	23250
900 Mcm.	AA	37	1.092	39,510	31,170	26150
900 Mcm.	B&A	61	1.094	40,520	31,590	26150
1,000 Mcm.	AA	37	1.151	43,830	34,400	29060
1,000 Mcm.	B&A	61	1.152	45,030	35,100	29060
1,250 Mcm.	A	61	1.288	55,670	43,590	36320
1,250 Mcm.	B	91	1.289	56,280	43,880	36320
1,500 Mcm.	A	61	1.411	65,840	51,950	43590
1,500 Mcm.	B	91	1.412	67,540	52,650	43590
1,750 Mcm.	A	91	1.526	77,930	61,020	50850
1,750 Mcm.	B	127	1.526	78,800	61,430	50850
2,000 Mcm.	A	91	1.630	87,790	69,270	58120
2,000 Mcm.	B	127	1.632	90,050	70,210	58120

#### COMPACT STRANDED COPPER CABLE

(ASTM SPEC.B496)

CONDUCTOR SIZE		NUMBER OF WIRES	CONDUCTOR DIAMETER (IN.)
KCMIL (OR)	AWG		
1000		61 <sup>1</sup>	1.060
900		61 <sup>1</sup>	0.999
800		61 <sup>1</sup>	0.938
750		61 <sup>1</sup>	0.908
700		61 <sup>1</sup>	0.877
650		61 <sup>1</sup>	0.845
600		61 <sup>1</sup>	0.813
550		61 <sup>1</sup>	0.775
500		37 <sup>2</sup>	0.736
450		37 <sup>2</sup>	0.700
400		37 <sup>2</sup>	0.659
350		37 <sup>2</sup>	0.616
300		37 <sup>2</sup>	0.570
250		37 <sup>2</sup>	0.520
	4/0	19 <sup>3C</sup>	0.475
	3/0	19 <sup>3C</sup>	0.423
	2/0	19 <sup>3C</sup>	0.376
	1/0	19 <sup>3C</sup>	0.336
	1	19 <sup>3C</sup>	0.299
	2	7	0.268
	4	7	0.213
	6	7	0.169
	8	7	0.134

<sup>1</sup> 58 Wires Minimum

<sup>2</sup> 35 Wires Minimum

<sup>3</sup> 18 Wires Minimum



## CABLE DATA (CONTINUED)

### FLEXIBLE COPPER STRANDED CABLE

CONDUCTOR SIZE KCMIL OR B & SG (AWG)	STRANDING AND DIAMETER	NOMINAL DIAMETER	CLASS
8	41/.0201	.156	I
8	49/.0184	.166	G
8	133/.0111	.167	H
8	168/.010	.157	K
8	420/.0063	.162	M
7	49/.0206	.185	G
7	52/.0201	.185	I
7	133/.0125	.188	H
7	210/.010	.179	K
7	532/.0063	.196	M
6	49/.0231	.208	G
6	63/.0201	.207	I
6	133/.0140	.210	H
6	266/.010	.210	K
6	665/.0063	.215	M
5	49/.0260	.234	G
5	84/.0201	.235	I
5	133/.0158	.237	H
5	336/.010	.235	K
5	836/.0063	.240	M
4	49/.0292	.263	G
4	105/.0201	.263	I
4	133/.0177	.266	H
4	420/.010	.272	K
4	1064/.0063	.269	M
3	49/.0328	.295	G
3	133/.0199	.299	H
3	133/.0201	.291	I
3	532/.010	.304	K
3	1323/.0063	.305	M
2	49/.0368	.331	G
2	133/.0223	.335	H
2	161/.0201	.319	I
2	665/.010	.338	K
2	1666/.0063	.337	M
1	133/.0251	.377	G
1	210/.0201	.367	I
1	259/.018	.378	H
1	836/.010	.397	K
1	2107/.0063	.376	M
1/0	133/.0282	.423	G
1/0	259/.0202	.424	H
1/0	266/.0201	.441	I
1/0	1064/.010	.451	K
1/0	2646/.0063	.423	M
2/0	133/.0316	.474	G
2/0	259/.0227	.477	H
2/0	342/.0201	.500	I
2/0	1323/.010	.470	K
2/0	3325/.0063	.508	M
3/0	133/.0355	.533	G
3/0	259/.0255	.536	H
3/0	418/.0201	.549	I
3/0	1666/.010	.533	K
3/0	4256/.0063	.576	M
4/0	133/.0399	.599	G
4/0	259/.0286	.601	H
4/0	532/.0201	.613	I
4/0	2107/.010	.627	K
4/0	5320/.0063	.645	M

CONDUCTOR SIZE KCMIL OR B & SG (AWG)	STRANDING AND DIAMETER	NOMINAL DIAMETER	CLASS
250	259/.0311	.650	G
250	427/.0242	.653	H
250	637/.0201	.682	I
250	2499/.010	.682	K
250	6384/.0063	.713	M
300	259/.0340	.714	G
300	427/.0265	.716	H
300	735/.0201	.737	I
300	2989/.010	.768	K
300	7581/.0063	.768	M
350	259/.0368	.773	G
350	427/.0286	.772	H
350	882/.0201	.800	I
350	3458/.010	.809	K
350	8806/.0063	.825	M
400	259/.0393	.825	G
400	427/.0306	.826	H
400	980/.0201	.831	I
400	3990/.010	.878	K
400	10101/.0063	.901	M
450	259/.0417	.876	G
450	427/.0325	.878	H
450	1127/.0201	.894	I
450	4522/.010	.933	K
450	11396/.0063	.940	M
500	259/.0439	.922	G
500	427/.0342	.923	H
500	1225/.0201	.941	I
500	5054/.010	.988	K
500	12691/.0063	.997	M
600	427/.0375	1.013	G
600	703/.0292	1.022	H
600	1470/.0201	1.027	I
600	5985/.010	1.125	K
600	14945/.0063	1.084	M
700	427/.0405	1.094	G
700	703/.0316	1.106	H
700	1729/.0201	1.194	I
700	6916/.010	1.207	K
700	17507/.0063	1.183	M
800	427/.0433	1.169	G
800	703/.0337	1.180	H
800	1995/.0201	1.290	I
800	7980/.010	1.305	K
800	20069/.0063	1.256	M
900	427/.0459	1.239	G
900	703/.0358	1.253	H
900	2261/.0201	1.372	I
900	9065/.010	1.323	K
900	22631/.0063	1.331	M
1000	427/.0484	1.307	G
1000	703/.0377	1.320	H
1000	2527/.0201	1.427	I
1000	10101/.010	1.419	K
1000	25193/.0063	1.404	M



### CABLE DATA (CONTINUED)

#### ALUMINUM TUBE

SIZE OF TUBE IPS	DIAMETER OF TUBE (IN.)		WALL THICKNESS
	OUTSIDE	INSIDE	
<b>STANDARD PIPE SIZES</b>			
1/4	0.540	0.364	0.088
3/8	0.675	0.493	0.091
1/2	0.840	0.622	0.109
3/4	1.050	0.824	0.113
1	1.315	1.049	0.133
1-1/4	1.660	1.380	0.140
1-1/2	1.900	1.610	0.145
2	2.375	2.067	0.154
2-1/2	2.875	2.469	0.203
3	3.500	3.068	0.216
3-1/2	4.000	3.548	0.226
4	4.500	4.026	0.237
4-1/2	5.000	4.506	0.247
5	5.563	5.047	0.258
6	6.625	6.065	0.280
<b>EXTRA HEAVY PIPE SIZES</b>			
1/4	0.540	0.302	0.119
3/8	0.675	0.423	0.126
1/2	0.840	0.546	0.147
3/4	1.050	0.742	0.154
1	1.315	0.957	0.179
1-1/4	1.660	1.278	0.191
1-1/2	1.900	1.500	0.200
2	2.375	1.939	0.218
2-1/2	2.875	2.323	0.276
3	3.500	2.900	0.300
3-1/2	4.000	3.364	0.318
4	4.500	3.826	0.337
4-1/2	5.000	4.290	0.355
5	5.563	4.813	0.375
6	6.625	5.761	0.432

#### ALUMINUM 1350 CABLE BARE-CLASS B

SIZE	Copper Equivalent based upon equal D.C. resistance, Co. 97% Alum 51%	STRANDING		Ultimate Strength	Minimum Ultimate Strength	Minimum Ultimate Strength
Circular Mils or A.W.G.	No. of Wires	Cable DIA. Inches	Pounds Hard Drawn	Pounds 3/4 Hard	Pounds Inter Temper	
250000	157300	37	0.575	4860	3338	2946
300000	188800	37	0.629	5831	4005	3534
350000	220200	37	0.681	6680	4673	4123
400000	251500	37	0.728	7352	5341	4713
450000	283000	37	0.772	8110	6007	5301
500000	314500	37	0.813	9012	6675	5890
550000	346000	61	0.855	10490	7344	6480
600000	377000	61	0.893	11450	8010	7068
650000	409000	61	0.929	11940	8678	7657
700000	440000	61	0.964	12860	9346	8247
750000	472000	61	0.998	13510	10010	8835
800000	503000	61	1.031	14410	10680	9424
900000	566000	61	1.094	15900	12010	10600
1000000	629000	61	1.152	17670	13350	11780
1100000	692000	91	1.209	20210	14680	12950
1200000	755000	91	1.263	21630	16020	14130
1250000	786000	91	1.289	22530	16690	14720
1300000	818000	91	1.315	23430	17350	15310
1400000	880000	91	1.364	24750	18700	16500
1500000	943000	91	1.412	26500	20020	17670
1600000	1006000	127	1.459	28840	21360	18850
1700000	1069000	127	1.504	30630	22690	20020
1750000	1101000	127	1.526	31530	23350	20610
1800000	1132000	127	1.548	32450	24030	21210
1900000	1195000	127	1.590	33570	25360	22380
2000000	1258000	127	1.632	35340	26700	23560
2500000	1570000	127	1.824	43300	33380	29460
3000000	1890000	169	1.998	53010	40050	35340
3500000	2200000	169	2.158	60610	46730	41230

#### ALUMINUM 1350 CABLE BARE-CLASSES AA AND A HARD DRAWN

CABLE CODE WORD	SIZE Circular mils or A.W.G.	COPPER EQUIVALENT based on equal D.C. resistance, Cu. 97% Alum. 61%	NO. OF WIRES	CABLE DIA. Inches	ULTIMATE STRENGTH Pounds
Peachbell	6	8	7	0.184	528
Rose	4	6	7	0.232	826
Lily	3	5	7	0.260	1022
Iris	2	4	7	0.292	1266
Pansy	1	3	7	0.328	1537
Poppy	1/0	2	7	0.368	1865
Aster	2/0	1	7	0.414	2350
Phlox	3/0	1/0	7	0.464	2845
Oxlip	4/0	2/0	7	0.522	3590
Daisy	266800	3/0	7	0.586	4525
Laurel	266800	3/0	19	0.593	4800
Tulip	336400	4/0	19	0.666	5940
Canna	397500	250000	19	0.724	6880
Cosmos	477000	300000	19	0.793	8090
Syringa	477000	300000	37	0.795	8600
Dahlia	556500	350000	19	0.856	9440

CABLE CODE WORD	SIZE Circular mils or A.W.G.	COPPER EQUIVALENT based on equal D.C. resistance, Cu. 97% Alum. 61%	NO. OF WIRES	CABLE DIA. Inches	ULTIMATE STRENGTH Pounds
Mistletoe	556500	350000	37	0.858	9830
Orchid	636000	400000	37	0.918	11240
Violet	715500	450000	37	0.974	12640
Nasturtium	715500	450000	61	0.975	13150
Arbutus	795000	500000	37	1.026	13770
Lilac	795000	500000	61	1.028	14330
Anemone	874500	550000	37	1.077	14830
Crocus	874500	550000	61	1.078	15760
Magnolia	954000	600000	37	1.124	16180
Goldenrod	954000	600000	61	1.126	16860
Bluebell	1033500	650000	37	1.170	17530
Larkspur	1033500	650000	61	1.172	18260
Marigold	1113000	700000	61	1.216	19660
Narcissus	1272000	800000	61	1.300	22000
Carnation	1431000	900000	61	1.379	24300
Coreopsis	1590000	1000000	61	1.454	27000
Dogwood	1590000	1000000	91	1.454	28100



### CABLE DATA (CONTINUED)

#### ACSR

ASCR			DIAMETER Inches		Copper Equivalent based upon equal D.C. resistance Cu. 97% Alum. 61%	Ultimate Strength Pounds	ASCR			DIAMETER Inches		Copper Equivalent based upon equal D.C. resistance Cu. 97% Alum. 61%	Ultimate Strength Pounds		
CODE WORD	Cir. Mils. or A.W.G.	STRANDING Number of Strands		Complete cable	Steel Core		CODE WORD	Cir. Mils. or A.W.G.	STRANDING Number of Strands		Complete cable	Steel Core			
		Alum.	Steel	Alum.	Steel				Alum.	Steel	Alum.	Steel			
Turkey	6	6	1	0.198	0.0661	8	1170	Hen	477000	30	7	0.883	0.3783	300000	23300
Thrush	5	6	1	0.223	0.0743	7	1460	Parakeet	556500	24	7	0.914	0.3045	350000	19850
Swan	4	6	1	0.250	0.0834	6	1830	Dove	556500	26	7	0.927	0.341	350000	22400
Swanate	4	7	1	0.257	0.1029	6	2288	Eagle	556500	30	7	0.953	0.409	350000	27200
Swallow	3	6	1	0.281	0.0937	5	2250	Peacock	605000	24	7	0.953	0.318	380500	21500
Sparrow	2	6	1	0.316	0.1052	4	2790	Squab	605000	26	7	0.966	0.356	380500	24100
Sparate	2	7	1	0.325	0.1299	4	3525	Teal	605000	30	19	0.994	0.426	380500	30000
Robin	1	6	1	0.355	0.1182	3	3480	Rook	636000	24	7	0.977	0.326	400000	22600
Raven	1/0	6	1	0.398	0.1327	2	4280	Grosbeak	636000	26	7	0.990	0.365	400000	25000
Quail	2/0	6	1	0.447	0.1490	1	5345	Egret	636000	30	19	1.019	0.437	400000	31500
Pigeon	3/0	6	1	0.502	0.1672	1/0	6675	Flamingo	666600	24	7	1.000	0.333	419000	23700
Penguin	4/0	6	1	0.563	0.1878	2/0	8420	Crow	715500	54	7	1.036	0.345	450000	26300
Waxwing	266800	18	1	0.609	0.1217	3/0	7100	Starling	715500	26	7	1.051	0.387	450000	28100
Owl	266800	26	7	0.633	0.2109	3/0	9645	Redwing	715500	30	19	1.081	0.463	450000	34600
Partridge	266800	26	7	0.642	0.2364	3/0	11250	Condor	795000	54	7	1.093	0.364	500000	28500
Ostrich	300000	26	7	0.680	0.2505	188700	12650	Drake	795000	26	7	1.108	0.408	500000	31200
Merlin	336400	18	1	0.684	0.1367	4/0	8950	Mallard	795000	30	19	1.140	0.489	500000	38400
Linnet	336400	26	7	0.721	0.2655	4/0	14050	Crane	874500	54	7	1.146	0.382	550000	31400
Oriole	336400	30	7	0.741	0.3177	4/0	17040	Canary	900000	54	7	1.162	0.387	566000	32300
Chickadee	397500	18	1	0.743	0.1486	250000	10400	Cardinal	954000	54	7	1.196	0.399	600000	34200
Brant	397500	24	7	0.771	0.2575	250000	14690	Curlew	1033500	54	7	1.246	0.415	650000	37100
Ibis	397500	26	7	0.783	0.2883	250000	16190	Finch	1113000	54	19	1.293	0.431	700000	40200
Lark	397500	30	7	0.806	0.3453	250000	19980	Pheasant	1272000	54	19	1.382	0.461	800000	44800
Pelican	477000	18	1	0.814	0.1628	300000	12300	Plover	1431000	54	19	1.465	0.489	900000	50400
Flicker	477000	24	7	0.846	0.2820	300000	17200	Falcon	1590000	54	19	1.545	0.515	1000000	56000

### HIGH STRENGTH ACSR

ASCR				DIAMETER Inches		Copper Equivalent based upon equal D.C. resistance Cu. 97% Alum. 61%	Ultimate Strength Pounds
CODE WORD	Cir. Mils. or A.W.G.	STRANDING Number of Strands		Complete cable	Steel Core		
		Alum.	Steel	Alum.	Steel		
Grouse	80000	8	1	0.367	0.1670	50310	5200
Petrel	101800	12	7	0.461	0.2763	64160	9860
Minorca	110800	12	7	0.481	0.2883	69700	10730
Leghorn	134600	12	7	0.530	0.3177	84600	12920
Guinea	159000	12	7	0.576	0.3453	100000	15200
Dotterel	176900	12	7	0.607	0.3642	111200	16440
Dorking	190800	12	7	0.631	0.3783	120000	17730
Cochin	211300	12	7	0.663	0.3981	132900	19640
Brahma	203200	16	9	0.714	0.4885	127800	27500



### CABLE DATA (CONTINUED)

#### COMPACT ALUMINUM 1350 CABLE (ASTM B400) EXTRA HARD

Conductor Size		Class	Number of Wire	Conductor Diameter Inches	Breaking Strength Lbs.
KCMIL	AWG				
1000	B	B	61 <sup>1</sup>	1.060	17,700
900			61 <sup>1</sup>	0.999	15,900
800			61 <sup>1</sup>	0.938	14,400
750			61 <sup>1</sup>	0.908	13,500
700			61 <sup>1</sup>	0.877	12,900
650			61 <sup>1</sup>	0.845	11,900
600	AA	AA	61 <sup>1</sup>	0.813	11,500
556			19 <sup>3</sup>	0.780	9,750
550			61 <sup>1</sup>	0.775	10,500
500			37 <sup>2</sup>	0.736	9,110
500			19 <sup>3</sup>	0.736	8,760
477			19 <sup>3</sup>	0.722	8,360
450	AA, A	AA, A	37 <sup>2</sup>	0.700	8,200
400			37 <sup>2</sup>	0.659	7,440
397			19 <sup>3</sup>	0.659	7,110
350			37 <sup>2</sup>	0.616	6,760
350			19 <sup>3</sup>	0.616	6,390
336			A	19 <sup>3</sup>	6,150
336	A	AA	AA	7	5,960
300			B	37 <sup>2</sup>	5,890
300			A	19 <sup>3</sup>	5,480
300			AA	7	5,430
266			A	19 <sup>3</sup>	4,970
266			AA	7	4,830
250	AA	AA	B	37 <sup>2</sup>	4,910
250			A	19 <sup>3</sup>	4,660
250			AA	7	4,520
			4/0	B	19 <sup>3</sup>
			4/0	AA, A	7
			3/0	B	19 <sup>3</sup>
	AA, A	AA, A	3/0	AA, A	7
			2/0	B	19 <sup>3</sup>
			2/0	AA, A	7
			1/0	B	19 <sup>3</sup>
			1/0	AA, A	7
			1	B	19 <sup>3</sup>
	AA, A, B	AA, A, B	1	AA, A	7
			2	AA, A, B	7
			3	A, B	7
			4	A, B	7
			6	A, B	7
			8	A, B	7

<sup>1</sup> 58 wires minimum

<sup>2</sup> 35 wires minimum

<sup>3</sup> 18 wires minimum

#### ALUMINUM ALLOY 5005 CABLE (ASTM B397)

Conductor Size cmil	Number of Wires	Approx. Aluminum 1350 Size having Equivalent Resistance		Size & Stranding of ACSR with Equal Diameter			Rated Strength Lbs.
		cmil	AWG	cmil	AWG	Stranding	
927,200	37	795,000	—	795,000	—	26/7	23,900
740,800	37	636,000	—	636,000	—	26/7	19,300
652,400	19	556,500	—	556,500	—	26/7	16,200
587,200	19	506,500	—	556,500	—	18/1	14,600
559,500	19	477,000	—	477,000	—	26/7	13,900
503,600	19	435,500	—	477,500	—	18/1	12,500
465,400	19	397,500	—	397,500	—	26/7	12,200
419,400	19	362,000	—	397,500	—	18/1	11,200
394,500	19	336,400	—	336,400	—	26/7	10,500
355,100	19	306,400	—	336,400	—	18/1	9,600
312,800	19	266,800	—	266,800	—	26/7	8,450
281,400	19	242,900	—	266,800	—	18/1	7,610
246,900	7	211,600	4/0	211,600	4/0	6/1	6,330
195,700	7	167,800	3/0	167,800	3/0	6/1	5,020
155,400	7	133,100	2/0	133,100	2/0	6/1	4,280
123,300	7	105,600	1/0	105,600	1/0	6/1	3,440
77,470	7	66,360	2	66,360	2	6/1	2,200
48,690	7	41,740	4	41,740	4	6/1	1,430
30,580	7	26,240	6	26,240	6	6/1	922

#### ALUMINUM ALLOY 6201 CABLE (ASTM B399)

Conductor Size cmil	Number of Wires	Approx. Aluminum 1350 Size having Equivalent Resistance		Size & Stranding of ACSR with Equal Diameter			Rated Strength Lbs.
		cmil	AWG	cmil	AWG	Stranding	
1439,200	61	1272,000	—	1272,000	—	54/7	46,800
1348,800	61	1192,500	—	1192,500	—	54/7	43,900
1259,600	61	1113,000	—	1113,000	—	54/7	41,000
1165,100	61	1033,500	—	1033,500	—	54/7	37,900
1077,400	61	954,000	—	954,000	—	54/7	35,000
927,200	37	795,000	—	795,000	—	26/7	30,500
740,800	37	636,000	—	636,000	—	26/7	24,400
652,400	19	556,500	—	556,500	—	26/7	21,900
559,500	19	477,000	—	477,000	—	26/7	18,800
465,400	19	397,500	—	397,500	—	26/7	15,600
394,500	19	336,400	—	336,400	—	26/7	13,300
312,800	19	266,800	—	266,800	—	26/7	11,000
246,900	7	211,600	4/0	211,600	4/0	6/1	8,560
195,700	7	167,800	3/0	167,800	3/0	6/1	6,790
155,400	7	133,100	2/0	133,100	2/0	6/1	5,390
123,300	7	105,600	1/0	105,600	1/0	6/1	4,460
77,470	7	66,360	2	66,360	2	6/1	2,800
48,690	7	41,740	4	41,740	4	6/1	1,760
30,580	7	26,240	6	26,240	6	6/1	1,110



## CABLE DATA (CONTINUED)

ALUMINUM ALLOY 8000 SERIES "O" TEMPER CABLE  
(ASTM B801)

CONDUCTOR SIZE		NUMBER OF WIRES†	CLASS	CONDUCTOR DIAMETER			MIN. BREAKING STRENGTH LBS.
KCMIL	AWG			Conventional In.	Compressed In.	Compact In.	
1000		127	D	1.153	1.119	1.060	6010
1000		91	C	1.153	1.118	1.060	6010
1000		61	B, A	1.152	1.117	1.060	6010
900		127	D	1.095	1.062	0.999	5400
900		91	C	1.093	1.060	0.999	5400
900		61	B, A	1.093	1.060	0.999	5400
800		127	D	1.032	1.001	0.938	4800
800		91	C	1.032	1.001	0.938	4800
800		61	B, A	1.031	1.000	0.938	4800
750		127	D	0.998	0.968	0.908	4500
750		91	C	0.999	0.969	0.908	4500
750		61	B, A	0.998	0.968	0.908	4500
700		127	D	0.965	0.936	0.877	4200
700		91	C	0.965	0.936	0.877	4200
700		61	B, A	0.964	0.935	0.877	4200
650		127	D	0.930	0.902	0.845	3900
650		91	C	0.930	0.902	0.845	3900
650		61	B	0.929	0.901	0.845	3900
650		37	A	0.928	0.900	0.845	3950
600		127	D	0.893	0.866	0.813	3600
600		91	C	0.893	0.866	0.813	3600
600		61	B	0.893	0.866	0.813	3600
556		37	A	0.891	0.864	0.813	3640
556		127	D	0.861	0.835	0.780	3340
556		91	C	0.860	0.834	0.780	3340
556		61	B	0.860	0.834	0.780	3340
556		37	A	0.858	0.832	0.780	3380
556		127	D	0.855	0.829	0.775	3300
556		91	C	0.855	0.829	0.775	3300
556		61	B	0.855	0.829	0.775	3300
550		37	A	0.853	0.827	0.775	3340
500		91	D	0.815	0.791	0.736	3000
500		61	C	0.815	0.791	0.736	3000
500		37	B, A	0.813	0.789	0.736	3040
477		91	D	0.796	0.772	0.722	2860
477		61	C	0.796	0.772	0.722	2860
477		37	B, A	0.795	0.771	0.722	2900
450		91	D	0.773	0.750	0.700	2700
450		61	C	0.773	0.750	0.700	2700
450		37	B, A	0.772	0.749	0.700	2730
400		91	D	0.729	0.707	0.659	2400
400		61	C	0.729	0.707	0.659	2400
400		37	B, A	0.728	0.706	0.659	2430
397		91	D	0.727	0.705	0.659	2390
397		61	C	0.726	0.704	0.659	2390
397		37	B	0.725	0.703	0.659	2410
397		19	A	0.724	0.702	0.659	2470
350		91	D	0.682	0.661	0.616	2100
350		61	C	0.681	0.661	0.616	2100
350		37	B	0.681	0.661	0.616	2130
350		19	A	0.679	0.659	0.616	2170
336		61	C	0.669	0.649	0.603	2020
336		37	B	0.668	0.648	0.603	2040
336		19	A	0.666	0.646	0.603	2090
300		61	C	0.631	0.612	0.570	1800
300		37	B	0.630	0.611	0.570	1820
300		19	A	0.629	0.610	0.576	1860
266		61	C	0.595	0.577	0.537	1600
266		37	B	0.594	0.576	0.537	1620
266		19	A	0.593	0.575	0.537	1660
250		61	C	0.576	0.559	0.520	1500



## CABLE DATA (CONTINUED)

### ALUMINUM ALLOY 8000 SERIES "O" TEMPER CABLE (CONTINUED)

CONDUCTOR SIZE		NUMBER OF WIRES†	CLASS	CONDUCTOR DIAMETER			MIN. BREAKING STRENGTH LBS.
KCMIL	AWG			Conventional In.	Compressed In.	Compact In.	
250 250 4/0	37 19 37	37 19 37	B A C	0.575	0.558	0.520	1520
				0.574	0.557	0.520	1550
				0.529	0.513	0.475	1280
	4/0 4/0 3/0 3/0 3/0	19 7 37 19 7	B A C B A	0.528	0.512	0.475	1310
				0.522	0.506	0.475	1360
				0.471	0.457	0.423	1020
				0.470	0.456	0.423	1040
				0.464	0.450	0.423	1070
	2/0 2/0 1/0 1/0 1	19 7 19 7 19	B A B A B	0.419	0.406	0.376	826
				0.414	0.402	0.376	853
				0.373	0.362	0.336	655
				0.368	0.357	0.336	676
				0.332	0.322	0.229	519
				0.292	0.283	0.268	425
	3 4 6 8	7 7 7 7	B, A B, A B, A B, A	0.260	0.252	0.238	337
				0.232	0.225	0.213	267
				0.184	0.178	0.169	168
				0.146	0.142	0.134	106

† For compact-stranded constructions, the number of wires may be reduced as follows:

19-Wire Constructions - 18 Wires Minimum

37-Wire Constructions - 35 Wires Minimum

61-Wire Constructions - 58 Wires Minimum

91-Wire Constructions - 87 Wires Minimum

127-Wire Constructions - 122 Wires Minimum

### ACSR/TW (TRAP WIRE) CABLE (CONTINUED)

#### COMPACT ACSR (ASTM B401)

CONDUCTOR SIZE		CONDUCTOR DIAMETER (IN.)	BREAKING STRENGTH (LB)
KCMIL	AWG		
336.4 266.8 4/0	0.628 0.559 0.517 0.461 0.410	0.628	8,260
		0.559	6,540
		0.517	7,420
		0.461	5,880
		0.410	4,880
		1/0	3,980
	1 2 3 4	1	3,290
		2	3,260
		3	2,640
		4	2,130
		4	2,160
	4 6	4	1,760
		6	1,120

#### ACSR/TW (TRAP WIRE) CABLE (ASTM B779)

CONDUCTOR SIZE KCMIL	STRANDING		NOMINAL DIAMETER INCHES	RATED STRENGTH LBS
	Number of Aluminum Wires	Number of Steel Wires		
336.4	14	1	0.63	8,600
477.0	18	7	0.78	17,200
477.0	18	7	0.79	19,400
556.5	18	7	0.84	20,000
556.5	20	7	0.85	22,600
636.0	27	1	0.85	13,500
636.0	18	7	0.89	22,900
636.0	20	7	0.91	25,400
795.0	17	7	0.96	21,000
795.0	18	7	0.98	25,900

CONDUCTOR SIZE KCMIL	STRANDING		NOMINAL DIAMETER INCHES	RATED STRENGTH LBS
	Number of Aluminum Wires	Number of Steel Wires		
405.1	14	1	0.68	10,200
571.7	18	7	0.85	20,600
565.3	20	7	0.86	22,900
664.8	20	7	0.93	26,600
666.6	20	7	0.91	24,000
762.8	20	7	0.99	30,500
768.2	20	7	0.98	27,700
768.9	27	1	0.93	16,400
795.0	20	7	0.99	28,200
795.0	20	7	1.01	31,800
946.7	35	7	1.08	29,600
954.0	30	7	1.05	23,700
954.0	32	7	1.06	25,900
954.0	20	7	1.08	33,500
957.2	32	7	1.06	26,000
1033.5	30	7	1.09	25,700
1033.5	32	7	1.10	28,100
1033.5	21	7	1.13	36,300
1113.0	30	7	1.13	27,500
1113.0	33	7	1.14	30,000
1113.0	38	19	1.19	39,100
1192.5	30	7	1.17	29,500
1192.5	33	7	1.18	32,400
1192.5	38	19	1.22	41,900
1272.0	30	7	1.20	31,400
1272.0	35	7	1.22	34,600
1272.0	39	19	1.26	44,100
1351.5	35	7	1.26	36,700
1351.5	39	19	1.30	46,800
1431.0	36	7	1.29	38,900
1431.0	39	19	1.34	49,600
1590.0	36	7	1.36	42,200
1590.0	42	19	1.41	55,100
1780.0	37	19	1.45	50,700
2156.0	64	19	1.61	61,100



## CABLE DATA (CONTINUED)

### ACSR/TW (TRAP WIRE) CABLE (CONTINUED)

CONDUCTOR SIZE KCMIL	STRANDING		NOMINAL DIAMETER INCHES	RATED STRENGTH LBS
	Number of Aluminum Wires	Number of Steel Wires		
959.6	22	7	1.11	37,000
966.2	21	7	1.09	34,000
1158.0	33	7	1.17	31,600
1158.4	25	7	1.20	39,600
1168.1	30	7	1.16	28,900
1233.6	38	19	1.25	42,900
1257.1	35	7	1.21	34,200
1272.0	30	7	1.20	31,400
1334.6	39	19	1.29	46,300
1359.7	36	7	1.26	36,900
1372.5	30	7	1.25	33,400
1433.6	39	19	1.34	49,700
1455.3	36	7	1.30	39,200
1467.8	33	7	1.29	35,800
1533.3	39	19	1.38	53,200
1557.4	36	7	1.35	41,900
1569.0	33	7	1.33	38,200
1622.0	39	19	1.42	57,500
1657.4	36	7	1.39	44,000
1730.6	39	19	1.47	59,400
1758.6	37	19	1.14	34,600
1926.9	42	19	1.55	65,300
1949.6	42	7	1.50	51,900
2153.8	64	19	1.60	61,100
2627.3	64	19	1.76	74,500

### AAC/TW (ALL ALUMINUM TRAP WIRE) (ASTM B778)

CONDUCTOR SIZE, KCMIL	NOMINAL DIAMETER, IN.	NUMBER OF WIRES	RATED STRENGTH, LBF
336.4	0.612	17	6,220
397.5	0.661	17	7,230
477.0	0.720	17	8,530
500.0	0.736	17	8,940
556.5	0.775	17	9,950
600.0	0.803	17	10,700
636.0	0.825	17	11,400
700.0	0.864	17	12,500
750.0	0.893	17	13,400
795.0	0.919	17	13,900
900.0	0.990	31	15,800
954.0	1.018	31	16,700
1000.0	1.041	31	17,500
1033.5	1.057	31	18,100
1113.0	1.095	31	19,500
1192.5	1.132	31	20,900
1272.0	1.168	31	22,300
1351.5	1.202	31	23,700
1431.0	1.236	31	24,600
1590.0	1.315	49	27,300
1750.0	1.377	49	30,000
2000.0	1.468	49	34,300

### ACAR CABLE‡ (ASTM B524)

CONDUCTOR SIZE KCMIL	AWG	NUMBER OF WIRES	NOMINAL OUTSIDE DIAMETER
2000		91	1.630
2000		61	1.630
1900		61	1.588
1800		61	1.546
1750		61	1.525
1700		61	1.502
1600		61	1.458
1500		61	1.411
1400		61	1.364
1300		61	1.314
1300		37	1.312
1250		61	1.288
1250		37	1.287
1200		61	1.263
1200		37	1.261
1100		61	1.209
1100		37	1.207
1000		61	1.152
1000		37	1.151
950		37	1.121
900		37	1.092
850		37	1.061
800		37	1.029
750		37	0.997
700		37	0.962
650		37	0.928
600		37	0.891
600		19	0.888
550		37	0.853
550		19	0.850
500		37	0.813
500		19	0.811
450		19	0.770
400		19	0.726
350		19	0.678
300		19	0.628
250		19	0.574
246.9		7	0.563
195.7	4/0	7	0.522
195.7		7	0.502
155.4	3/0	7	0.464
155.4	2/0	7	0.447
123.3		7	0.414
123.3	1/0	7	0.398
77.4		7	0.368
48.6	2	7	0.316
48.6	4	7	0.292
30.5		7	0.250
30.5		7	0.232
30.5		7	0.198

‡ Refer to ASTM Specification B524 for breaking strengths.



## CABLE DATA (CONTINUED)

## SSAC CABLE

SIZE AWG OR KCMIL	STRANDING		CONDUCTOR DIAMETER	RATED STRENGTH POUNDS
	ALUMINUM	STEEL		
266.8	22	7	.622	6030
266.8	24	7	.633	7410
266.8	26	7	.642	8880
266.8	30	7	.660	11700
300.0	26	7	.680	9970
336.4	20	7	.692	5990
336.4	22	7	.701	7610
336.4	24	7	.710	9340
336.4	26	7	.720	11200
336.4	30	7	.741	14800
397.5	20	7	.752	7090
397.5	22	7	.762	8990
397.5	24	7	.772	11000
397.5	26	7	.783	13000
397.5	30	7	.806	17500
477.0	20	7	.823	8490
477.0	22	7	.834	10800
477.0	24	7	.846	13000
477.0	26	7	.858	15600
477.0	30	7	.883	21000
500.0	30	7	.904	22000
556.5	20	7	.890	9910
556.5	22	7	.901	12600
556.5	24	7	.914	15200
556.5	26	7	.927	18200
556.5	30	7	.953	24500
605.0	24	7	.953	16500
605.0	26	7	.966	19700
605.0	30	7	.994	26000
605.0	30	19	.994	26600
636.0	20	7	.951	11300
636.0	22	7	.963	14100
636.0	24	7	.977	17300
636.0	26	7	.990	20700
636.0	30	7	1.019	27400
636.0	30	19	1.019	28000
666.6	24	7	1.000	18200
666.6	26	7	1.104	21700
715.5	24	7	1.036	19500
715.5	26	7	1.051	23300
715.5	30	19	1.081	30800
795.0	42	7	1.055	11800
795.0	20	7	1.063	14200
795.0	45	7	1.063	14200
795.0	22	7	1.077	17700
795.0	24	7	1.092	21700
795.0	54	7	1.092	21700
795.0	26	7	1.108	25900
795.0	30	19	1.140	34300
900.0	45	7	1.131	15800
900.0	54	7	1.162	24600
954.0	42	7	1.155	14200
954.0	20	7	1.185	16700
954.0	45	7	1.165	16700
954.0	48	7	1.175	19700
954.0	24	7	1.196	26000
954.0	54	7	1.196	26000
954.0	30	19	1.248	41100

## SSAC CABLE (CONTINUED)

SIZE AWG OR KCMIL	STRANDING		CONDUCTOR DIAMETER	RATED STRENGTH POUNDS
	ALUMINUM	STEEL		
1033.5	42	7	1.203	15400
1033.5	45	7	1.212	18100
1033.5	48	7	1.222	21300
1033.5	54	7	1.245	28200
1113.0	42	7	1.248	16300
1113.0	45	7	1.259	19500
1113.0	48	7	1.269	23000
1113.0	54	19	1.293	30400
1192.5	42	7	1.292	17500
1192.5	45	7	1.302	20900
1192.5	48	7	1.313	24600
1192.5	54	19	1.338	32600
1272.0	42	7	1.334	18700
1272.0	45	7	1.345	22300
1272.0	48	7	1.357	26200
1272.0	54	19	1.382	34100
1351.5	42	7	1.376	19900
1351.5	45	7	1.386	23700
1351.5	48	7	1.398	27900
1351.5	54	19	1.424	36200
1431.0	42	7	1.415	21000
1431.0	45	7	1.427	25100
1431.0	48	7	1.439	29500
1431.0	54	19	1.465	38400
1510.5	45	7	1.466	26500
1510.5	54	19	1.505	40500
1590.0	42	7	1.492	23400
1590.0	45	7	1.504	27900
1590.0	48	7	1.517	32200
1590.0	54	19	1.545	42600
1780.0	84	19	1.602	35400
1869.0	68	7	1.603	21500
2034.5	72	7	1.681	27200



### CABLE DATA

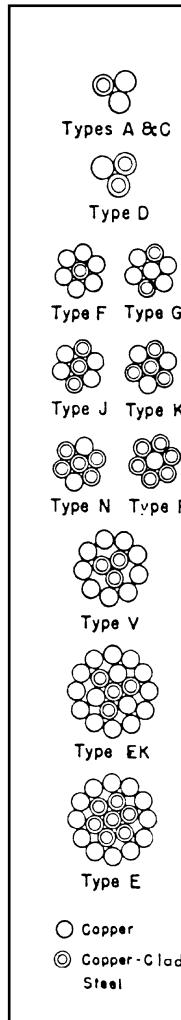
#### SOLID COPPERWELD CABLE (ASTM B227)

Conductor Size (AWG)	Nominal Diameter (Inches)	Circular Mils	Minimum Breaking Load (lbs.)			
			Grade 40 HS	Grade 40 EHS	Grade 30 HS	Grade 30 EHS
4	0.2043	41,740	3,540	—	3,934	4,671
5	0.1819	33,090	2,937	—	3,249	3,911
—	0.1650*	27,230	2,779	—	2,779	3,367
6	0.1620	26,240	2,679	—	2,679	3,246
7	0.1443	20,820	2,207	—	2,207	2,681
8	0.1285	16,510	1,816	—	1,816	2,205
—	0.1280*	16,380	1,802	—	1,802	2,188
9	0.1144	13,090	1,491	—	1,491	1,790
—	0.1040*	10,820	1,283	1,325	1,283	1,487
10	0.1019	10,380	1,231	—	1,231	1,460
12	0.0808	6,530	774	—	774	918
—	0.0800*	6,400	759	—	759	900
—	0.0640*	4,096	485	—	485	576
18	0.0403	1,624	193	—	193	228
—	0.0390*	1,521	180	—	180	214
20	0.0320	1,024	121	—	121	144

\* These diameters are often employed by purchasers for communication lines BUT are not in the American Wire Gauge (B & S Wire Gauge) series, as are the other diameters listed.

#### COPPERWELD-COPPER CABLE (ASTM B229)

Conductor Size Hard Drawn Copper Equivalent AWG	Type	Nominal Diameter of Conductor (inches)	Minimum Breaking Load (pounds)
350,000	—	E	0.788
350,000	—	EK	0.735
350,000	—	V	0.754
300,000	—	E	0.729
300,000	—	EK	0.680
300,000	—	V	0.698
250,000	—	E	0.666
250,000	—	EK	0.621
250,000	—	V	0.637
211,600	4/0	G	0.613
211,600	4/0	EK	0.583
211,600	4/0	V	0.566
211,600	4/0	F	0.550
211,600	3/0	E	0.545
167,800	3/0	J	0.555
167,800	3/0	G	0.519
167,800	3/0	EK	0.509
167,800	3/0	V	0.522
167,800	3/0	F	0.490
133,100	2/0	K	0.534
133,100	2/0	J	0.494
133,100	2/0	G	0.463
133,100	2/0	V	0.465
133,100	2/0	F	0.436
105,600	1/0	K	0.475
105,600	1/0	J	0.440
105,600	1/0	G	0.412
105,600	1/0	F	0.388
83,690	1	N	0.464
83,690	1	K	0.423
83,690	1	J	0.392
83,690	1	G	0.367
83,690	1	F	0.346
66,360	2	P	0.462
66,360	2	N	0.413
66,360	2	K	0.377
66,360	2	J	0.349
66,360	2	A	0.366
66,360	2	G	0.327
66,360	2	F	0.308
55,620	3	P	0.411
52,620	3	N	0.368
52,620	3	K	0.336
52,620	3	J	0.311
52,620	3	A	0.326
41,740	4	P	0.366
41,740	4	N	0.328
41,740	4	D	0.348
41,740	4	A	0.290
33,090	5	P	0.326
33,090	5	D	0.310
33,090	5	A	0.258
26,240	6	D	0.276
26,240	6	A	0.230
26,240	6	C	0.225
20,820	7	D	0.246
20,820	7	A	0.223
16,510	8	D	0.219
16,510	8	A	0.199
16,510	8	C	0.179
11,750	9	D	0.174
			1,743



#### SOLID COPPERWELD CABLE (ASTM B227)

#### STRANDED COPPERWELD CABLE (ASTM B228)

Nominal Diameter† (Inch) Size A.W.G.‡	Circular Mils	Diameter* (Inch)	Breaking Load Lbs.**		
			40% Cond.	30% Cond.	30% Cond.
7/8 (19 No. 5)	628,900	.910	50,240	55,570	66,910
13/16 (19 No. 6)	498,800	.810	41,600	45,830	55,530
23/32 (19 No. 7)	395,500	.721	34,390	37,740	45,850
27/32 (19 No. 8)	313,700	.642	28,380	31,040	37,690
9/16 (19 No. 9)	248,800	.572	23,390	25,500	30,610
5/8 (7 No. 4)	292,200	.613	22,310	24,780	29,430
9/16 (7 No. 5)	231,700	.546	18,510	20,470	24,650
1/2 (7 No. 6)	183,800	.486	15,330	16,890	20,460
7/16 (7 No. 7)	145,700	.433	12,670	13,910	16,890
3/8 (7 No. 8)	115,600	.385	10,460	11,440	13,890
11/32 (7 No. 9)	91,650	.343	8,616	9,393	11,280
5/16 (7 No. 10)	72,680	.306	7,121	7,758	9,196
3 No. 5	99,310	.392	8,373	9,262	11,860
3 No. 6	78,750	.349	6,934	7,639	9,754
3 No. 7	62,450	.311	5,732	6,291	7,922
3 No. 8	49,530	.277	4,730	5,174	6,282
3 No. 9	39,280	.247	3,898	4,250	5,129
3 No. 10	31,150	.220	3,221	3,509	4,160
3 No. 12	19,590	.174	2,236	—	—

† The designation "Inch" is the approximate diameter in proper fraction of an inch.

‡ The designation of "AWG" is a combination of the number of wires each of the American Wire Gage size indicated by "No."

\* Diameter of circumscribing.

\*\* Breaking loads of 7-wire and 19-wire conductors are taken as 90% of the sum of the breaking loads of individual wires; breaking load of 3-wire conductors is taken as 95% of the sum of the breaking loads of the individual wires.

#### GALVANIZED STEEL CABLE (ASTM A475)

Inches	Nominal Diameter of Strand (mm)	Number of Wires in Strand	Minimum Breaking Load (lbs.)			
			Utilities Grade	Common Grade	Siemens-Martin Grade	High-Strength Grade
1/8 (3.18)	7	—	540	910	1,330	1,830
5/32 (3.97)	7	—	870	1,470	2,140	2,940
3/16 (4.76)	7	2,400	—	1,150	1,900	2,850
3/16 (4.76)	3	—	1,400	2,340	3,500	4,900
7/32 (5.56)	7	—	1,540	2,560	3,850	5,400
7/32 (5.56)	3	3,150	1,860	3,040	4,730	6,740
1/4 (6.35)	3	4,500	—	—	—	—
1/4 (6.35)	7	—	1,900	3,150	4,750	6,650
9/32 (7.14)	3	—	2,080	3,380	5,260	7,500
9/32 (7.14)	7	4,600	2,570	4,250	6,400	8,950
5/18 (7.94)	3	6,500	2,490	4,090	6,350	9,100
5/18 (7.94)	7	—	3,200	5,350	8,000	11,200
5/16 (7.94)	7	6,000	—	—	—	—
3/8 (9.52)	3	8,500	3,330	5,560	8,360	11,800
3/8 (9.52)	7	11,500	4,250	6,950	10,800	15,400
7/16 (11.11)	7	18,000	5,700	9,350	14,500	20,800
1/2 (12.70)	7	25,000	7,400	12,100	18,800	26,900
1/2 (12.70)	19	—	7,620	12,700	19,100	26,700
9/16 (14.29)	7	—	9,600	15,700	24,500	35,000
9/16 (14.29)	19	—	9,640	16,100	24,100	33,700
5/8 (15.88)	7	—	11,600	19,100	29,600	42,400
5/8 (15.88)	19	—	11,000	18,100	28,100	40,200
3/4 (19.05)	19	—	16,000	26,200	40,800	58,300
7/8 (22.22)	19	—	21,900	35,900	55,800	79,700
1 (25.40)	9	—	28,700	47,000	73,200	104,500
1 (25.40)	37	—	28,300	46,200	71,900	102,700
1-1/8 (28.58)	37	—	36,000	58,900	91,600	130,800
1-1/4 (31.75)	37	—	44,600	73,000	113,600	162,200



## CABLE DATA

ALUMINUM-COATED STEEL CABLE  
(ASTM A474)

NOMINAL DIAMETER OF STRAND (IN.)	NUMBER OF WIRES IN STRAND	MINIMUM BREAKING STRENGTH, lbf					
		UTILITIES GRADE*	COMMON GRADE		SIEMANS-MARTIN GRADE	HIGH-STRENGTH GRADE	EXTRA HIGH-STRENGTH GRADE
3/16	7		1 150		1 900	2 850	
3/16	7	2 400					
1/4	3	3 150					
1/4	3	4 500					
1/4	7		1 900		3 150	4 750	6 650
9/32	7	4 600					
5/16	3	6 500					
5/16	7		3 200		5 350	8 000	11 200
5/16	7	6 000					
3/8	3	8 500					
3/8	7	11 500	4 250	6 950	10 800	15 400	
7/16	7	18 000	5 350	9 350	14 500	20 800	
1/2	7	25 000	7 400	12 100	18 800	26 900	

\* The Utilities Grade is used principally by communications and power and light industries.

## AWG VS. METRIC WIRE SIZES

CIRC. MILS	EQUIV-ALENT CIRC. MILS	AWG. SIZE	METRIC WIRE SIZE MM	STRANDING/WIRE DIAMETER PER STRAND		APPROXIMATE OVERALL DIAMETER		CIRC. MILS	EQUIV-ALENT CIRC. MILS	AWG. SIZE	METRIC WIRE SIZE MM	STRANDING/WIRE DIAMETER PER STRAND		APPROXIMATE OVERALL DIAMETER	
				IN.	MM	IN.	MM					IN.	MM	IN.	MM
—	937	—	0.50	1/.032	1/.813	.032	.061	83690	—	1	—	19/.0064	19/1.50	.332	8.43
1020	—	20	—	7/.0121	7/.307	.036	.091	—	98680	—	50	19/.073	19/1.85	.365	9.27
—	1480	—	.075	1/.039	1/.091	.039	.099	10500	—	1/0	—	19/.0745	19/1.59	.373	9.46
1620	—	18	—	1/.0103	1/.02	.040	.102	133100	—	2/0	—	19/.0837	19/2.13	.419	10.6
1620	—	18	—	7/.0152	7/.386	.046	.116	—	138100	—	70	19/.086	19/2.18	.430	10.9
—	1974	—	1.0	1/.045	1/.14	.045	.114	167800	—	3/0	—	19/.094	19/2.59	.470	11.9
—	1974	—	1.0	7/.017	7/.422	.061	.130	167800	—	3/0	—	36/.0673	37/1.71	.471	12.0
2580	—	16	—	1/.0503	1/.129	.051	.129	—	187500	—	95	19/.101	19/2.57	.505	12.8
2580	—	16	—	7/.0192	7/.468	.058	.146	—	187500	—	95	37/.072	37/1.83	.504	12.5
—	2960	—	1.5	1/.055	1/.40	.055	.140	211600	—	4/0	—	19/.1055	19/2.89	.528	13.4
—	2960	—	1.5	7/.021	7/.533	.063	.160	—	237.8 MCM	—	120	37/.081	37/2.06	.567	14.4
4110	—	14	—	1/.0641	1/.163	.064	.163	250 MCM	—	—	—	37/.0822	37/2.07	.575	14.6
4110	—	14	—	7/.0242	7/.615	.073	.184	300 MCM	—	150	—	37/.090	37/2.29	.630	16.0
—	4934	—	2.5	1/.071	1/.180	.071	.180	350 MCM	—	—	—	37/.0973	37/2.47	.681	17.3
—	4934	—	2.5	7/.027	7/.666	.081	.206	—	365.1 MCM	—	185	37/.100	37/2.54	.700	17.8
6530	—	12	—	1/.0308	1/.205	.081	.205	400MCM	—	—	—	37/.104	37/2.64	.728	18.5
6530	—	12	—	7/.0305	7/.775	.092	.232	—	473.6 MCM	—	240	37/.114	37/2.90	.798	20.3
—	7894	—	4	1/.089	1/.226	.089	.226	—	473.6 MCM	—	240	61/.089	61/2.26	.801	20.3
—	7894	—	4	7/.034	7/.864	.102	.259	500 MCM	—	—	—	37/.1162	37/2.95	.813	20.7
10380	—	10	—	1/.1019	1/.259	.102	.259	500MCM	—	—	—	61/.0905	61/2.30	.814	20.7
10380	—	10	—	7/.0355	7/.978	.116	.293	—	592.1 MCM	—	300	61/.099	61/2.51	.891	22.6
—	11840	—	6	1/.109	1/.277	.109	.277	600 MCM	—	—	—	61/.0992	61/2.52	.893	22.7
—	11840	—	6	7/.042	7/.107	.126	.321	700MCM	—	—	—	61/.1071	61/2.72	.964	24.5
13000	—	9	—	1/.1144	1/.291	.114	.291	750 MCM	—	—	—	61/.1109	61/2.82	.998	25.4
13090	—	9	—	7/.0432	7/.110	.130	.330	750 MCM	—	—	—	91/.0908	91/2.31	.998	25.4
16510	—	8	—	1/.1285	1/.326	.128	.325	—	789.4 MCM	—	400	61/.114	61/2.90	1.026	26.1
16510	—	8	—	7/.0486	7/.123	.146	.370	800 MCM	—	—	—	61/.1145	61/2.91	1.031	26.2
—	19740	—	10	1/.141	1/.358	.141	.358	800 MCM	—	—	—	91/.0938	91/2.38	1.032	26.2
—	19740	—	10	7/.054	7/.137	.162	.412	1000 MCM	—	500	—	61/.1280	61/3.25	1.152	28.3
20520	—	7	—	1/.1443	1/.367	.144	.367	1000 MCM	—	—	—	91/.1048	91/2.66	1.153	29.3
20520	—	7	—	7/.0545	7/.138	.164	.415	—	1233.7 MCM	—	625	91/.117	91/2.97	1.287	32.7
26240	—	6	—	1/.162	1/.411	.162	.411	1250 MCM	—	—	—	91/.1172	91/2.93	1.289	32.7
26240	—	6	—	7/.0612	7/.155	.184	.466	1250 MCM	—	—	—	127/.0992	127/2.52	1.200	32.8
—	31580	—	16	7/.008	7/.173	.204	.513	1500 MCM	—	—	—	91/.1284	91/3.26	1.412	36.9
—	33090	—	5	7/.0688	7/.175	.206	.524	1500 MCM	—	—	—	127/.1087	127/2.76	1.413	36.9
—	41740	—	4	7/.0772	7/.196	.232	.588	—	1578.8 MCM	—	800	91/.132	91/3.35	1.452	36.9
—	49340	—	25	7/.085	7/.216	.255	.648	—	1973.5 MCM	—	1000	91/.147	91/3.73	1.617	41.1
—	49340	—	25	19/.052	10/.132	.260	.660	2000 MCM	—	—	—	127/.1255	127/3.19	1.632	41.5
52620	—	3	—	7/.0867	7/.220	.260	.661	2000 MCM	—	—	—	169/.1088	169/2.76	1.632	41.5
66300	—	2	—	7/.0974	7/.247	.292	.742	—	—	—	—	—	—	—	—
—	69070	—	35	7/.100	7/.254	.300	.762	—	—	—	—	—	—	—	—
—	69070	—	35	19/.001	19/.155	.305	.775	—	—	—	—	—	—	—	—



## INCHES &amp; MILLIMETERS CONVERSION CHART

INCHES	MILLIMETERS	INCHES	MILLIMETERS	MM	INCHES	MM	INCHES
$\frac{1}{64}$	.015625 — 0.397	$\frac{33}{64}$	.515625 — 13.097	.1	.0039	46	1.8110
$\frac{1}{32}$	.03125 — 0.794	$\frac{17}{32}$	.53125 — 13.494	.2	.0079	47	1.8504
$\frac{3}{64}$	.046875 — 1.191	$\frac{35}{64}$	.546875 — 13.891	.3	.0118	48	1.8898
$\frac{1}{16}$	.625 — 1.588	$\frac{9}{16}$	.5625 — 14.288	.4	.0157	48	1.9291
$\frac{5}{64}$	.078125 — 1.984	$\frac{37}{64}$	.578125 — 14.684	.5	.0197	50	1.9685
$\frac{3}{32}$	.9375 — 2.381	$\frac{19}{32}$	.59375 — 15.081	.6	.0236	51	2.0079
$\frac{7}{64}$	.109375 — 2.778	$\frac{39}{64}$	.609375 — 15.478	.7	.0276	52	2.0472
$\frac{1}{8}$	.1250 — 3.175	$\frac{5}{8}$	.6250 — 15.875	.8	.0315	53	2.0866
$\frac{9}{64}$	.140625 — 3.572	$\frac{41}{64}$	.640625 — 16.272	.9	.0354	54	2.1260
$\frac{5}{32}$	.15625 — 3.969	$\frac{21}{32}$	.65625 — 16.669	1	.0394	55	2.1654
$\frac{11}{64}$	.171875 — 4.366	$\frac{43}{64}$	.671875 — 17.066	2	.0787	56	2.2047
$\frac{3}{16}$	.1875 — 4.763	$\frac{11}{16}$	.6875 — 17.463	3	.1181	57	2.2441
$\frac{13}{64}$	.203125 — 5.159	$\frac{45}{64}$	.703125 — 17.859	4	.1575	58	2.2835
$\frac{7}{32}$	.21875 — 5.556	$\frac{23}{32}$	.71875 — 18.256	5	.1969	59	2.3228
$\frac{15}{64}$	.234375 — 5.953	$\frac{47}{64}$	.734375 — 18.653	6	.2362	60	2.3622
$\frac{1}{4}$	.2500 — 6.350	$\frac{3}{4}$	.7500 — 19.050	7	.2756	61	2.4016
$\frac{17}{64}$	.265625 — 6.747	$\frac{49}{64}$	.765625 — 19.447	8	.3150	62	2.4409
$\frac{9}{32}$	.28125 — 7.144	$\frac{25}{32}$	.78125 — 19.844	9	.3543	63	2.4803
$\frac{19}{64}$	.296875 — 7.541	$\frac{51}{64}$	.796875 — 20.241	10	.3937	64	2.5197
$\frac{5}{16}$	.3125 — 7.938	$\frac{13}{16}$	.8125 — 20.638	11	.4331	65	2.5591
$\frac{21}{64}$	.328125 — 8.334	$\frac{53}{64}$	.828125 — 21.034	12	.4724	66	2.5984
$\frac{11}{32}$	.34375 — 8.731	$\frac{27}{32}$	.84375 — 21.431	13	.5118	67	2.6378
$\frac{23}{64}$	.359375 — 9.128	$\frac{55}{64}$	.859375 — 21.828	14	.5512	68	2.6772
$\frac{3}{8}$	.3750 — 9.525	$\frac{7}{8}$	.8750 — 22.225	15	.5906	69	2.7165
$\frac{25}{64}$	.390625 — 9.922	$\frac{57}{64}$	.890625 — 22.622	16	.6299	70	2.7559
$\frac{13}{32}$	.40625 — 10.319	$\frac{29}{32}$	.90625 — 23.019	17	.6693	71	2.7953
$\frac{27}{64}$	.421875 — 10.716	$\frac{59}{64}$	.921875 — 23.416	18	.7087	72	2.8346
$\frac{7}{16}$	.4375 — 11.113	$\frac{15}{16}$	.9375 — 23.813	19	.7480	73	2.8740
$\frac{29}{64}$	.453125 — 11.509	$\frac{61}{64}$	.953125 — 24.209	20	.7874	74	2.9134
$\frac{15}{32}$	.46875 — 11.906	$\frac{31}{32}$	.96875 — 24.606	21	.8268	75	2.9528
$\frac{31}{64}$	.484375 — 12.303	$\frac{63}{64}$	.984375 — 25.003	22	.8661	76	2.9921
$\frac{1}{2}$	.5000 — 12.700	$1\frac{1}{2}$	1.000 — 25.400	23	.9055	77	3.0315
				24	.9449	78	3.0709
				25	.9843	79	3.1102
				26	1.0236	80	3.1496
				27	1.0630	81	3.1890
				28	1.1024	82	3.2283
				29	1.1417	83	3.2677
				30	1.1811	84	3.3071
				31	1.2205	85	3.3465
				32	1.2598	86	3.3858
				33	1.2992	87	3.4252
				34	1.3386	88	3.4646
				35	1.3780	89	3.5039
				36	1.4173	90	3.5433
				37	1.4567	91	3.5827
				38	1.4961	92	3.6220
				39	1.5354	93	3.6614
				40	1.5748	94	3.7008
				41	1.6142	95	3.7402
				42	1.6535	96	3.7795
				43	1.6929	97	3.8189
				44	1.7323	98	3.8583
				45	1.7717	99	3.8976
				100	3.9370		

1mm = .03937" .001" = .0254 mm.



## TERMINAL STUD SIZE CHART\*

STUD SIZE	#0	#1	#2	#3	#4	#5	#6	#8	#10	#12	#14	1/4"	5/16"	3/8"
Stud Diameter	.060	.073	.086	.090	.112	.125	.138	.164	.190	.216	.242	.250	.312	.375
Stud Hole	.067	.093	.119				.145	.171	.197	.223	.250	17/64	21/64	25/64

STUD SIZE	7/16"	1/2"	5/8"	3/4"	7/8"	1"
Stud Diameter	.437	.500	.625	.750	.875	1.000
Stud Hole	29/64	33/64	21/32	29/32	29/32	1 - 1/32

\* Tolerance .003" on decimal and .005" on fractional dimensions



## DIE SET CONVERSION CHART FOR OBSOLETE DIES AND TOOLS

This catalog uses the new, Burndy simplified overhead lines die set catalog numbering system, based on Die Index numbers and letters.

The Die Index numbers are marked on the overhead lines, connectors and die sets. Where a die set has more than one Die Index, the catalog number will generally be the

lowest number assigned or all indexes may be marked.

The Die Index numbers and letters in this conversion chart are arranged in numerical or alphabetical order.

To determine the new catalog number for old die sets, cross reference the Die Index on the

connector, or the old die set, with the Die Index shown on the chart. The new die set catalog number or letters appear for each tool in the previous table. **Note: Many "A" dies are available. Contact the factory.** The gage column lists quality control inspection gages for the corresponding die index.

DIE INDEX		MECHANICAL TOOLS	HYDRAULIC TOOLS						GAGE NO.	
			MD5	Y34A	Y35 & Y35L	Y45L	Y48B	Y486RB		
A	OLD			A8YC	U8YCMT					
	NEW			A-A	U-A					
BG	OLD	MD5-3			U2YLCMT					UG-BG UG-BG-YSU
	NEW	MD5-3			U-BG					
C	OLD	MD5-3	A2YC	U2YCMT						
	NEW	MD5-3	A-C	U-C						
D	OLD		A26AYC	U26AYCT						
	NEW		A-D	U-D						
D3	OLD				U28YPT					
	NEW				U-D3					
E	OLD		A26YC	U26YCT						
	NEW		A-E	U-E						
F	OLD			U28YCT						
	NEW			U-F						
H	OLD			U28AYCT						
	NEW			U-H						
K	OLD	MD5-3								
	NEW	MD5-3								
K-840	OLD									
	NEW			U-K840						
L	OLD			U28YTT						
	NEW			U-L						
M	OLD			U33YTT						
	NEW			U-M						
N	OLD			U33YPCT	S33YPT					
	NEW			U-N	S-N					
O	OLD			U26YPT						
	NEW			U-O						
Q	OLD									
	NEW									
R	OLD			U33RYCT						
	NEW			U-R						
161	OLD	MD5-2	A6CYD	U6CYDMT						
	NEW	MD5-2	A161	U161						
162	OLD	MD5-2	A4CYD	U4CYDMT		C4CYD	F4CYD			UG4C
	NEW	MD5-2	A162	U162		C162	F162			
163	OLD	MD5-2	A2CYD	U2CYDMT		C2CYD	F2CYD			UG2C
	Same as 505	NEW	MD5-2	A163	U163		C163	F163		
164	OLD		A1CYD	U1CYDMT		C1CYD	F1CYD			UG1C
	Same as 275	NEW	A164	U164		C164	F164			



## DIE SET CONVERSION CHART (CONTINUED) FOR OBSOLETE DIES AND TOOLS

DIE INDEX		MECHANICAL TOOLS	HYDRAULIC TOOLS						GAGE NO.	
			MD5	Y34A	Y35 & Y35L	Y45L	Y48B	Y486RB		
165 Same as 287	OLD			A25YD	U25YDT		C25YD	F25YD	L25YDT	UG25
	NEW			A165	U165		C165	F165	L165	
166 Same as 206	OLD			A26YD	U26YDT		C26YD	F26YD	L26YDT	UG26
	NEW			A166	U166		C166	F166	L166	
167 Same as 207, 211, 256	OLD			A27YD	U27YDT		C27YD	F27YD	L27YDT	UG27
	NEW			A167	U167		C167	F167	L167	
168 Same as 208	OLD			A28YD	U28YDT		C28YD	F28YD	L28YDT	UG28
	NEW			A168	U168		C168	F168	L168	
169	OLD			A29YD	U29YDT		C29YD	F29YD	L29YDT	UG29
	NEW			A169	U169		C169	F169	L169	
170 Same as 306	OLD			A30YD	U30YDT		C30YD	F30YD	L30YDT	UG30
	NEW			A170	U170		C170	F170	L170	
171	OLD	MD5-2	A8WYD	U8WYDMT						
	NEW	D5-2	A171	U171						
192	OLD		A31RYD							
	NEW		A192							
193	OLD		A33RYD	U33RYDT		C33RYD		L33RYDT		
	NEW		A193	U193		C193		L193		
202	OLD		A8KYD	U8KYDMT						
	NEW		A202	U202						
203	OLD		A6KYD	U6KYDMT						
	NEW		A203	U203						
204	OLD		A4KYD	U4KYDT						
	NEW		A204	U204						
205 Same as 339	OLD		A2KYD	U2KYDT						UG2K
	NEW		A205	U205						
206 Same as 166	OLD		A26YD	U26YDT		C26YD	F26YD	L26YDT	UG26	
	NEW		A166	U166		C166	F166	L166		
207 Same as 167, 211, 256	OLD		A27YD	U27YDT		C27YD	F27YD	L27YDT	UG27	
	NEW		A167	U167		C167	F167	L167		
208 Same as 168	OLD		A28YD	U28YDT		C28YD	F28YD	L28YDT	UG28	
	NEW		A168	U168		C168	F168	L168		
209	OLD			U32YDT		C32YD	F32YD	L32YDT		
	NEW			U209		C209	F209	L209		
210	OLD			U34YDT		C34YD	F34YD	L34YDT	UG34	
	NEW			U210		C210	F210	L210		
211 Same as 167, 211, 256	OLD		A27YD	U27YDT		C27YD	F27YD	L27YDT	UG27	
	NEW		A167	U167		C167	F167	L167		
236	OLD		A4RSYF	U4RSYFT		C4RSYF			UG4RS	
	NEW		A236	U236		C236				
237	OLD		A4RYF	U4RYFT		C4RYF			UG4R	
	NEW		A237	U237		C237				
238	OLD	MD5-1	A2RSYF	U2RSYFT		C2RSYF			UG2RS	
	NEW	MD5-1	A238	U238		C238				
239	OLD		A2RYF	U2RYFT		C2RYF			UG2R	
	NEW		A239	U239		C239				
240	OLD		A1RSYF	U1RSYFT		C1RSYF				
	NEW		A240	U240		C240				



**DIE SET CONVERSION CHART (CONTINUED)**  
**FOR OBSOLETE DIES AND TOOLS**

DIE INDEX		MECHANICAL TOOLS	HYDRAULIC TOOLS						GAGE NO.	
			MD5	Y34A	Y35 & Y35L	Y45L	Y48B	Y486RB		
241	OLD			A1RYF	U1RYFT		C1RYF			UG1R
	NEW			A241	U241		C241			
24 Same as 244	OLD			A26RSYF	U26RSYFT		C26RSYF		L26RSYFT	UG26RS
	NEW			A242	U242		C242		L242	
243	OLD			A25RYF	U25RYFT		C25RYF		L25RYFT	UG25R
	NEW			A243	U243		C243		L243	
244 Same as 242	OLD			A26RSYF	U26RSYFT		C26RSYF		L26RSYFT	UG26RS
	NEW			A242	U242		C242		L242	
245	OLD			A26RYF	U26RYFT		C26RYF		L26RYFT	UG26R
	NEW			A245	U245		C245		L245	
246 Same as 248	OLD			A28RSYF	U28RSYFT		C28RSYF		L28RSYFT	UG28RS
	NEW			A248	U248		C248		L248	
247	OLD			A27RYF	U27RYFT		C27RYF		L27RYFT	UG27R
	NEW			A247	U247		C247		L247	
248 Same as 246	OLD			A28RSYF	U28RSYFT		C28RSYF		L28RSYFT	UG28RS
	NEW			A248	U248		C248		L248	
249	OLD			A28RYF	U28RYFT		C28RYF		L28RYFT	UG28R
	NEW			A249	U249		C249		L249	
250	OLD			A30RSYF	U30RSYFT		C30RSYF	F30RSYF	L30RSYFT	UG30RS
	NEW			A250	U250		C250	F250	L250	
251	OLD			A30RYF	U30RYFT		C30RYF	F30RYF	L30RYFT	UG30R
	NEW			A251	U251		C251	F251	L251	
252	OLD				U32RSYFT		C32RSYF	F32RSYF	L32RSYFT	UG32RS
	NEW				U252		C252	F252	L252	
253	OLD				U34RSYFT		C34RSYF	F34RSYF	L34RSYFT	UG34RS
	NEW				U253		C253	F253	L253	
254	OLD					S254	C43RSYF	F34RSYF	L34RSYFT	
	NEW						C254	F254	L254	
255	OLD				U44RSYFT		C44RSYF	F44RSYF	L44RSYFT	
	NEW				U255		C255	F255	L255	
256 Same as 167, 207, 211	OLD			A27YD	U27YDT		C27YD	F27YD	L27YDT	UG27
	NEW			A167	U167		C167	F167	L167	
257	OLD			A312HYD	U312HYDT		C312HYD		L312HYDT	
	NEW			A257	U257		C257		L257	
259	OLD				U3K5YDT		C3K5YD			UG3K5
	NEW				U259		C259			
260	OLD						C7K6YD	F7K6YD	L7K6YDT	
	NEW						C260	F260	L260	
261 Same as 318	OLD				U37RYFT		C37RYF	F37RYF	L37RYFT	UG37R
	NEW				U261		C261	F261	L261	
263	OLD		A26YD-1		U26YDT-1					
	NEW		A263		U263					
267	OLD				U31YDT		C31YD	F31YD	L31YDT	UG31
	NEW				U267		C267	F267	L267	
275 Same as 164	OLD		A1CYD		U1CYDMT		C1CYD	F1CYD		UG1C
	NEW		A164		U164		C164	F164		
276	OLD		A6WKYD		U6WKYDT					
	NEW		A276		U276					



## DIE SET CONVERSION CHART (CONTINUED) FOR OBSOLETE DIES AND TOOLS

DIE INDEX		MECHANICAL TOOLS	HYDRAULIC TOOLS						GAGE NO.	
			MD5	Y34A	Y35 & Y35L	Y45L	Y48B	Y486RB		
285	OLD			A8WKYD	U8WKYDMT					
	NEW			A285	U285					
287 Same as 165	OLD			A25YD	U25YDT		C25YD	F25YD	L25YDT	UG25
	NEW			A165	U165		C165	F165	L165	
292 Same as 578	OLD					S292	C292	F292	L292	UG412R1
	NEW						C293	F293	L293	
293	OLD						C412RSYF	F412RSYF	L412RSYFT	
	NEW						C293	F293	L293	
294 Same as 293	OLD					S293	C293	F293	L293	
	NEW						C412RSYF	F412RSYF	L412RSYFT	
304	OLD			U375HYDT		C375HYD			L375HYDT	UG375H
	NEW			U304		C304			L304	
305 Same as 341	OLD			U41RSYFT		C41RSYF	F41RSYF	L41RSYFT		
	NEW			U305		C305	F305	L305		
306 Same as 170	OLD		A30YD	U30YDT		C30YD	F30YD	L30YDT		UG30
	NEW		A170	U170		C170	F170	L170		
308	OLD		A3WYD	U3WYDT						
	NEW		A308	U308						
313	OLD			U47RSYFT		C47RSYF	F47RSYF	L47RSYFT		
	NEW			U313		C313	F313	L313		
314 Same as 376	OLD					C48RSYF	F48RSYF	L48RSYFT		
	NEW					C314	F314	L314		
316	OLD			U33RYFT		C33RYF	F33RYF	L33RYFT		UG33R
	NEW			U316		C316	F316	L316		
317 Same as 426	OLD			U35RYFT		C35RYF	F35RYF	L35RYFT		UG35R
	NEW			U317		C317	F317	L317		
318 Same as 261	OLD			U37RYFT		C37RYF	F37RYF	L37RYFT		UG37R
	NEW			U261		C261	F261	L261		
319	OLD					C43RYF	F43RYF	L43RYFT		
	NEW				S319	C319	F319	L319		
320	OLD					C45RSYF	F45RSYF	L45RSYFT		
	NEW				S320	C320	F320	L320		
321	OLD		A301AYD	U301AYDT		C301AYD				UG301A
	NEW		A321	U321		C321				
322	OLD		A30AYD	U30AYDT						
	NEW		A322	U322						
327	OLD			U361RYFT		C361RYF		L361RYFT		UG361R
	NEW			U327		C327		L327		
328	OLD					C7K7YD				
	NEW					C328				
329	OLD		A2FYD	U2FYDT						
	NEW		A329	U329						
331	OLD			U3K6YDT		C3K6YD				
	NEW			U331		C331				
339 Same as 205	OLD		A2KYD	U2KYDT						UG2K
	NEW		A205	U205						
341 Same as 205	OLD			U41RSYFT		C41RSYF	F41RSYF	L41RSYFT		
	NEW			U305		C305	F305	L305		



**DIE SET CONVERSION CHART (CONTINUED)**  
**FOR OBSOLETE DIES AND TOOLS**

DIE INDEX		MECHANICAL TOOLS	HYDRAULIC TOOLS						GAGE NO.
			MD5	Y34A	Y35 & Y35L	Y45L	Y48B	Y486RB	
342	OLD					C391AYD	F391AYD	L391AYDT	UG361A
	NEW				S342	C342	F342	L342	
344	OLD					C7K5YD			
	NEW					C344			
345	OLD					C44YD	F44YD	L44YDT	
	NEW					C345	F345	L345	
350	OLD			U36RSYFT		C36RSYF	F36RSYF	L36RSYFT	UG36RS
	NEW			U350		C350	F350	L350	
352	OLD					C45RYF	F45RYF	L45RYFT	
	NEW				S352	C352	F352	L352	
373	OLD		A25YD-1	U25YDT-1					
	NEW		A373	U373					
376 Same as 314	OLD					C48RSYF	F48RSYF	L48RSYFT	
	NEW					C314	F314	L314	
403	OLD		A1CYD-1	U1CYDT-1					
	NEW		A403	U403					
406	OLD		A26GYD						
	NEW		A406						
419	OLD					C49RSYF	F49RSYF	L49RSYFT	UG49RS
	NEW					C419	F419	L419	
422	OLD						F49RYF	L49RYFT	
	NEW						F422	L422	
426 Same as 317	OLD			U35RYFT		C35RYF		L35RYFT	UG35R
	NEW			U317		C317		L317	
459	OLD		A1CYD-3	U1CYDT-3					
	NEW		A459	U459					
468	OLD		A311AYD	U311AYDT					
	NEW		A468	U468					
469	OLD					C361AYD	F361AYD	L361AYDT	
	NEW				S469	C469	F469	L469	
490 Same as 547	OLD		A321RYF	U321RYFT		C321RYF	F321RYF	L321RYFT	UG321R
	NEW		A490	U490		C490	F490	L490	
495	OLD					C47RYF	R47RYF	L47RYFT	
	NEW					C495	F495	L495	
505 Same as 163	OLD	MD5-2	A2CYD	U2CYDMT		C2CYD	F2CYD	L2CYDT	UG2C
	NEW	MD5-2	A163	U163		C163	F163	L163	
547 Same as 490	OLD		A321RYF	U321YRFT		C321RYF	F321RYF	L321RYFT	UG321R
	NEW		A490	U490		C490	F490	L490	
552	OLD		A26FYD	U26FYDT					
	NEW		A552	U552					
568	OLD		A25FYD	U25FYDT					
	NEW		A568	U568					
575	OLD					C48RYF	F48RYF	L48RYFT	UG48R
	NEW					C575	F575	L575	
576	OLD					C36YD	F36YD	L36YDT	
	NEW					C576	F576	L576	
578 Same as 292	OLD					C412RYF-1	F412RYF-1	L412RYFT-1	UG412R1
	NEW				S292	C292	F292	L292	



## DIE SET CONVERSION CHART (CONTINUED) FOR OBSOLETE DIES AND TOOLS

DIE INDEX		MECHANICAL TOOLS	HYDRAULIC TOOLS						GAGE NO.	
			MD5	Y34A	Y35 & Y35L	Y45L	Y48B	Y486RB	Y60B	
579	OLD					C451RYF	F451RYF	L451RYFT		
	NEW					C579	F579	L579		
607	OLD			U281UYDT						
	NEW			U607						
608	OLD			U39RYFT		C39RYF	F39RYF	L39RYFT		
	NEW			U608		C608	F608	L608		
609	OLD		A250EYD	U250EYDT		C250EYD				
	NEW		A609	U609		C609				
614	OLD					C38RYF				
	NEW					C614				
616	OLD		A29AYD							
	NEW		A616							
627	OLD					C39YD	F39YD	L39YDT		
	NEW					C627	F627	L627		
642	OLD			U32LYDT		C32LYD				
	NEW			U642		C642				
643	OLD			U32RLYDT						
	NEW			U643						
648	OLD						F49RYF-1	L49RYFT-1		UG49R
	NEW						F648	L648		
654	OLD		A28RLYR	U28RLYRT					L28RLYRT	
	NEW		A654	U654					L654	
655	OLD			U321RLYRT						
	NEW			U655						
657	OLD					C39LYR				
	NEW					C657				
658	OLD		A27RLYR	U27RLYRT						UG27RL
	NEW		A658	U658						
659	OLD		A26RLYR	U26RLYRT						UG26RL
	NEW		A659	U659						
660	OLD		A25RLYR	U25RLYRT						
	NEW		A660	U660						
667	OLD					C36RLYR-1				
	NEW					C667				
668	OLD			U7M8YRT						
	NEW			U668						
676	OLD			U7M10YRT						
	NEW			U676						
677	OLD			U7M9YRT						UG7M9
	NEW			U677						
678	OLD			U7M7YRT						
	NEW			U678						
679	OLD			U7M6YRT						
	NEW			U679						
684	OLD						F51RYR	L51RYRT		
	NEW						F684	L684		
687	OLD									
	NEW									

**DIE SET CONVERSION CHART (CONTINUED)**  
**FOR OBSOLETE DIES AND TOOLS**

DIE INDEX		MECHANICAL TOOLS	HYDRAULIC TOOLS						GAGE NO.
			MD5	Y34A	Y35 & Y35L	Y45L	Y48B	Y486RB	
690	OLD				U1SET				
	NEW				U690				
691	OLD				U2SET				
	NEW				U691				
692	OLD				U4SET				
	NEW				U692				
693	OLD				U6AET				
	NEW				U693				
694	OLD				U10AET				
	NEW				U694				
702	OLD								
	NEW								



## BURNDY CONDUCTOR NUMBERING SYSTEM

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OUTSIDE DIA. IN.	OUTSIDE DIA. MM.	STR. CABLE		SOL. WIRE		AREA MM <sup>2</sup> Copper Cable	A.C.S.R.		PIPE SIZE CONDUCTOR				TUBE & ROD		SERVIT NO.
		Cat. No.	Size	Cat. No.	Size		Cat. No.	Cable Size	Cat. No.	ST D	Cat. No.	Ex Hvy	Cat. No.	Dia.	
.102	2.594			10W	10	5.261									KS90
.114	2.896			9W	9	6.634									
.116	2.946	10 C	10			5.261									
.125	3.175												60	1/8	
.129	3.277			8W	8	8.366									KS15
.130	3.302	9 C	9			6.634									
.144	3.658			7W	7	10.550									
.146	3.708	8 C	8			8.366									
.158	4.013						8R	8							
.162	4.115			6W	6	13.300									KS17
.164	4.166	7 C	7			10.550									
.176	4.470						7R	7							
.182	4.597			5W	5	16.770									
.184	4.648	6 C	6			13.300									
.198	5.029						6R	6							
.204	5.182			4W	4	21.150									KS20
.206	5.258	5 C	5			16.770									
.223	5.664						5R	5							
.229	5.817			3W	3	26.670									
.232	5.867	4 C	4			21.150									
.250	6.350						4R	4					61	1/4	
.258	6.553			2W	2	33.630									KS22
.260	6.629	3 C	3			2.6670									
.281	7.137						3R	3							
.289	7.344			1W	1	42.410									
.292	7.394	2 C	2			33.630									KS23
.316	8.026						2R	2							
.325	8.255			75	1/0	53.480									
.332	8.382	1 C	1			42.410									
.355	9.017						1R	1							
.365	9.274			76	2/0	67.430									
.372	9.474	25	1/0			53.480									KS25
.375	9.525												62	3/8	
.398	10.109						25R	1/0							
.405	10.287								10	1/8	50	1/8			
.410	10.414			77	3/0	85.030									
.419	10.617	26	2/0			67.430									KS26
.447	11.354						26R	2/0							
.460	11.684			78	4/0	107.20									
.470	11.938	27	3/0			85.03									
.500	12.700												63	1/2	
.502	12.725						27R	3/0							
.528	13.414	28	4/0			107.20									KS28
.540	13.716								11	1/4	51	1/4			
.563	14.326						28R	4/0							
.575	14.605	29	250			127.00									
.630	16.002	30	300			152.00									
.633	16.078						29R	266,800							
.642	16.307						30R	266,800							
.675	17.145								12	3/8	52	3/8			
.680	17.272						31R	300,000							
.681	17.297	31	350			177.00									KS31
.721	18.313						32R	336,400							
.728	18.494	32	400			203.00									
.741	18.824						33R	336,400							
.750	19.050												64	3/4	
.772	19.609	33	450			228.00									
.783	19.888						34R	397,500							
.806	20.472						35R	397,500							
.813	20.676	34	500			253.00									
.840	21.336								13	1/2	53	1/2			
.855	21.717	35	550			279.00									KS34
.858	21.742						36R	477,000							



## BURNDY CONDUCTOR NUMBERING SYSTEM (CONTINUED)

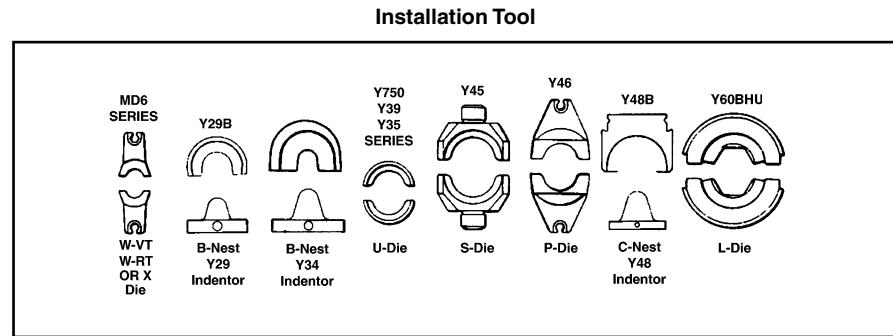
OUTSIDE DIA. IN.	OUTSIDE DIA. MM.	STR. CABLE		SOL. WIRE		AREA MM <sup>2</sup> Copper Cable	A.C.S.R.		PIPE SIZE CONDUCTOR			TUBE & ROD		SERVIT NO.	
		Cat. No.	Size	Cat. No.	Size		Cat. No.	Cable Size	Cat. No.	ST D	Cat. No.	Ex Hvy	Cat. No.	Dia.	
.883	22.428					304.00	37R	477,000							
.893	22.682	36	600												
.904	22.962						38R	500,000							
.927	23.546						39R	556,500							
.929	23.597	37	650			329.00									
.953	24.206						40R	556,500							
.953	24.206						41R	605,000							
.964	24.486	38	700			355.00									
.977	24.714						42R	636,000							
.998	25.349	39	750			380.00									KS39
1.000	25.400						43R	666,600					65	1	
1.031	26.187	40	800			405.00									
1.036	26.314						44R	715,500							
1.050	26.670								14	54					
1.062	26.975	41	850			431.00									
1.094	27.762	42	900			456.00	45R	795,000							
1.123	28.524	43	950			481.00									
1.146	29.108						46R	874,500							
1.152	29.264	44	1000			507.00									KS44
1.162	29.515						47R	900,000							
1.196	30.378						48R	954,000							
1.209	30.709	444	1100			557.00									
1.246	31.648						49R	1,033,500							
1.250	31.750												66	1	
1.263	32.080	448	1200			608.00									
1.289	32.744	45	1250			633.00									
1.293	32.817						50R	1,113,000							
1.315	33.404	452	1300			659.00			15	1	55	1			
1.338	33.960						51R	1,192,500							
1.364	34.646	456	1400			709.00									
1.382	35.103						52R	1,272,000							
1.412	35.865	46	1500			760.00									
1.424	36.170						53R	1,351,500							
1.459	37.059	464	1600			811.00									
1.465	37.214						54R	1,431,000							
1.500	38.100												67	1 1/2	
1.504	38.202	468	1700			861.00									
1.506	38.252						55R	1,510,500							
1.526	38.786	47	1750			886.00									
1.545	39.218						56R	1,590,000							
1.548	39.319	472	1800			912.00									
1.590	40.386	476	1900			963.00									
1.632	41.427	48	2000			1013.00									
1.660	42.164								16	1	56	1			
1.729	43.917	483	2250			1140.00									
1.824	46.330	486	2500			1267.00									
1.900	48.260								17	1 1/2	57	1 1/2			
1.914	48.616	490	2750			1393.00									
1.988	50.495	493	3000			1520.00									
2.000	50.800												68	2	
2.375	60.325								18	2	58	2			
2.500	63.500												69	2 1/2	
2.875	73.025								19	2 1/2	59	2 1/2			
3.000	76.200												70	3	
3.500	88.900								20	3	90	3	71	3 1/2	
4.000	101.600								21	3 1/2	91	3 1/2	72	4	
4.500	114.300								22	4	92	4	73	4 1/2	
5.000	127.000								23	4 1/2	93	4 1/2	74	5	
5.563	141.300								24	5	94	5			
6.063	154.000								85	5 1/2	95	5 1/2			
6.625	168.275								86	6	96	6			
7.625	193.675								87	7	97	7			
8.625	219.075								88	8	98	8			



## PRESENT INSTALLATION TOOL INDEX

This chart provides a cross-reference between die index numbers marked on **BURNDY COMPRESSION CONNECTORS** and the **CORRESPONDING DIE SETS** used with the various **BURNDY INSTALLATION TOOLS**. This is the only way to have a BURNDY compression system.

A die index number has been assigned to each required groove configuration. A prefix letter is used to indicate the specific installation tool for which the die has been designed, as shown below.



Corresponding Die Set

### DIE IDENTIFICATION NUMBERING SYSTEM



**CHART I**

A - Y34A	E - Y44B	P - Y46	X - OUR840/MD-6
B - Y34BH	F - Y486RB	S - Y45	
C - Y48B	G - Y34C	U - Y35	
	L - Y60B	W - MD-6/OUR840	

**CHART II**

12 - #12	4C - #4	26 - 2/0	31 - 350 MCM	OR INDEX
10 - #10	3C - #3	27 - 3/0	32 - 400 MCM	i.e., U312
8C - # 8	2C - #2	28 - 4/0	34 - 500 MCM	312 Die Index
6C - # 6	1C - #1	29 - 250 MCM	36 - 600 MCM	
5C - # 5	25 - 1/0	30 - 300 MCM	39 - 750 MCM	
			44 - 1000 MCM	

**CHART III**

A - ALUMINUM  
 B - INDENTOR NEST (USED WITH INDENTOR DIE # Y34P\*\*)  
 R - ROUND DIE (CIRCUMFERENTIAL)  
 T - TWIN DIE (BOTH HALVES)



## PRESENT INSTALLATION TOOL INDEX

DIE		DIELESS TOOLS		INSTALLATION TOOLING USING DIES													
GROOVE		MECH.	HYDR.	DIE INFORMATION		MECHANICAL			HYDRAULIC								
BURNDY	EEI	MR, MY	Y644	TYPE	COLOR	MD6	OUR840	Y29B <sup>⑤</sup>	Y34B	Y35 ①	Y39	Y750 ①	Y45 ②	Y46 ③	Y48B	Y60BHU	
A				DIE SET						U-A	U-A	U-A	U-A	U-A			
BG				DIE SET		Perm GR W-BG	X-BG X-NBG			U-BG	U-BG	U-BG	U-BG	U-BG			
C				DIE SET	BROWN	W-C				U-C	U-C	U-C	U-C	U-C			
D				DIE SET						U-D	U-D	U-D	U-D	U-D			
D3				DIE SET	BLUE					U-YFD	U-YFD	U-YFD	U-YFD	U-YFD			
						Perm GR				U-D3	U-D3	U-D3	U-D3	U-D3			
E				DIE SET						U-E	U-E	U-E	U-E	U-E			
F				DIE SET						U-F	U-F	U-F	U-F	U-F			
H				DIE SET						U-H	U-H	U-H	U-H	U-H			
K-1/4				DIE SET	WK14												
K-5/16				DIE SET	WK516					UK516T	UK516T	UK516T	UK516T	UK516T			
K-3/8				DIE SET	WK38					UK38T	UK38T	UK38T	UK38T	UK38T			
K-1/2				DIE SET	WK12												
K-9/16				DIE SET	WK916					UK916T	UK916T	UK916T	UK916T	UK916T			
K-19/32				DIE SET	WK1932												
K-5/8-1				DIE SET						UK581T	UK581T	UK581T	UK581T	UK581T			
K-11/16				DIE SET	WK1116					UK1116T	UK1116T	UK1116T	UK1116T	UK1116T			
K-3/4				DIE SET						UK34T	UK34T	UK34T	UK34T	UK34T			
K-1				DIE SET						UK1T	UK1T	UK1T	UK1T	UK1T			
K-1-5/16				DIE SET						UK1516T	UK1516T	UK1516T	UK1516T	UK1516T			
K-635				DIE SET	WK737					UK737T	UK737T	UK737T	UK737T	UK737T			
K-747				DIE SET	WK747												
K-781				DIE SET	WK781												
K-840				DIE SET	W-K840					U-K840	U-K840	U-K840	U-K840	U-K840			
KB				DIE SET	WKB					UKBT	UKBT	UKBT	UKBT	UKBT			
KBKT				DIE SET						UKBKTT	UKBKTT	UKBKTT	UKBKTT	UKBKTT			
KC				DIE SET						UKCT	UKCT	UKCT	UKCT	UKCT			
KK				DIE SET	WKK												
KR				DIE SET	YELLOW									P-YFR			
													S-KR	P-KR			
KT				DIE SET	WKT												
KU				DIE SET						UKUT	UKUT	UKUT	UKUT	UKUT			
L				DIE SET	W-L					U-L	U-L	U-L	U-L	U-L			
L80				DIE SET	—					U34XRT	U34XRT	U34XRT	U34XRT	U34XRT			
L99				DIE SET	PINK					U38XRT	U38XRT	U38XRT	U38XRT	U38XRT			
L115				DIE SET	YELLOW					U44XRT	U44XRT	U44XRT	U44XRT	U44XRT			
M				DIE SET						U-M	U-M	U-M	U-M	U-M			
N				DIE SET	RED					U-YFN	U-YFN	U-YFN	U-YFN	P-YFN			
										U-N	U-N	U-N	S-N	P-N			
O				DIE SET	GREEN					U-YFO	U-YFO	U-YFO	U-YFO	U-YFO			
					Perm GR W-O					U-O	U-O	U-O	U-O	U-O			
Q				DIE SET	W-Q												

① Cat. No. Y35P3 Adaptor is required to use "Y34PR" type indentors with "U" type nest dies in Y35 and Y750 series tools.

② Cat. No. PT6515 Adaptor is required to use "U" type dies in Y45 series tools.

③ Cat. No. PUADP-1 Adaptor is required to use "U" type dies in Y46 series tools.

④ The MD6-6R2 ratchet tool is required on these sizes. The standard MD6 or MD6R ratchet tools will not work.

⑤ Also pneumatic version Y29NC.



## PRESENT INSTALLATION TOOL INDEX (CONTINUED)

DIE		DIELESS TOOLS		INSTALLATION TOOLING USING DIES												
GROOVE		MECH.	HYDR.	DIE INFORMATION		MECHANICAL		HYDRAULIC								
BURNDY	EEI	MR, MY	Y644	TYPE	COLOR	MD6	OUR840	Y29B ⑤	Y34B	Y35 ①	Y39	Y750 ①	Y45 ②	Y46 ③	Y48	Y60BHU
R				DIE SET						U-R	U-R	U-R	U-R	U-R	U-R	
T				DIE SET									S-T			
Z				DIE SET									S-Z			
7 94	MR4C MY29-3 MY29-11	CRIMP	DIE SET	BLUE	W5CRT					U5CRT	U5CRT	U5CRT	U5CRT	U5CRT		
			NEST INDENTOR					D6CL	B6CD	U6CD-1	U6CD-1	U6CD-1	U6CD-1	U6CD-1		
8 95	MR4C MY29-3 MY29-11	CRIMP	DIE SET	GRAY	W4CRT	W4CRT				U4CRT	U4CRT	U4CRT	U4CRT	U4CRT		
			NEST INDENTOR					D4CL	B4CD	U4CD-1	U4CD-1	U4CD-1	U4CD-1	U4CD-1		
9 96	MY29-3 MY29-11	CRIMP	DIE SET	WHITE	W3CRT	W3CRT				U3CRT	U3CRT	U3CRT	U3CRT	U3CRT		
			NEST INDENTOR					D3CL	B3CD	U3CD-1	U3CD-1	U3CD-1	U3CD-1	U3CD-1		
10 97	MY29-3 MY29-11	CRIMP	DIE SET	BROWN	W2CRT					U2CRT	U2CRT	U2CRT	U2CRT	U2CRT		
			NEST INDENTOR					D2CL	B2CD	U2CD-1	U2CD-1	U2CD-1	U2CD-1	U2CD-1		
11 98	MY29-3 MY29-11	CRIMP	DIE SET	GREEN	W1CRT					U1CRT	U1CRT	U1CRT	U1CRT	U1CRT		
			NEST INDENTOR					D1CL	B1CD	U1CD-1	U1CD-1	U1CD-1	U1CD-1	U1CD-1		
12 99	MY29-3 MY29-11	CRIMP	DIE SET	PINK	W25RT	W25RT				U25RT	U25RT	U25RT	U25RT	U25RT		
			NEST INDENTOR					D25L	B25D	U25D-1	U25D-1	U25D-1	U25D-1	U25D-1		
13 100	MY29-3 MY29-11	CRIMP	DIE SET	BLACK	W26RT					U26RT	U26RT	U26RT	U26RT	U26RT		
			NEST INDENTOR					D26CL	B26D	U26D-1	U26D-1	U26D-1	U26D-1	U26D-1		
14 101	MY29-3 MY29-11	CRIMP	DIE SET	ORANGE	W27RT					U27RT	U27RT	U27RT	U27RT	U27RT		
			NEST INDENTOR					D27L	B27D	U27D-1	U27D-1	U27D-1	U27D-1	U27D-1		
15	MY29-3 MY29-11	CRIMP	DIE SET	PURPLE	W28RT					U28RT	U28RT	U28RT	U28RT	U28RT	C28R	
			NEST INDENTOR					D28L	B28D	U28D-1	U28D-1	U28D-1	U28D-1	U28D-1	C28D	
16	MY29-3 MY29-11	CRIMP	DIE SET	YELLOW	W29RT ④					U29RT	U29RT	U29RT	U29RT	U29RT	C29R	
			NEST INDENTOR					D29L	B29D		U29D-1	U29D-1	U29D-1	U29D-1	C29D	
17		CRIMP	DIE SET	WHITE	W30RT ④					U30RT	U30RT	U30RT	U30RT	U30RT	C30R	L30RT
			NEST INDENTOR					B30D		U30D-1	U30D-1	U30D-1	U30D-1	U30D		
18		CRIMP	DIE SET	RED	W31RT ④					U31RT	U31RT	U31RT	U31RT	U31RT	C31R	L31RT
			NEST INDENTOR					B31D		U31D-1	U31D-1	U31D-1	U31D-1	U31D		
19		CRIMP	DIE SET	BLUE	W32RT ④					U32RT	U32RT	U32RT	U32RT	U32RT	C32R	L32RT
			NEST INDENTOR					B32D		U32D-1	U32D-1	U32D-1	U32D-1	U32D		
20		CRIMP	DIE SET	BROWN	W34RT ④					Y34PR		Y34PR	Y34PR	Y34PR	Y48PR	
			NEST INDENTOR					NO DIE		U34D-1	U34D-1	U34D-1	U34D-1	U34D		
								Y34PR		Y34PR	Y34PR	Y34PR	Y34PR	Y48PR		

① Cat. No. Y35P3 Adapter is required to accomodate "Y34PR" type indentor in Y35, Y39, Y750 HYTOOLS and with the P-UADP-1 adapter in the Y46 and with the PT6515 adapter in the Y45.

② Cat. No. PT6515 Adapter is required to use "U" type dies in Y45 series tools.

③ Cat. No. PUADP-1 Adapter is required to use "U" type dies in Y46 series tools.

④ The MD6-R2 ratchet tool is required on these sizes. The standard MD6 or MD6R ratchet tools will not work.

⑤ Also pneumatic version Y29NC.

⑥ Use U1IT-1 for YH8C8C.

⑦ Hexagonal crimp.

⑧ Die 302 recommended for 1.84 O.D. barrel.



## PRESENT INSTALLATION TOOL INDEX (CONTINUED)

DIE		DIELESS TOOLS		INSTALLATION TOOLING USING DIES													
GROOVE		MECH.	HYDR.	DIE INFORMATION		MECHANICAL		HYDRAULIC									
BURNDY	EEI	MR, MY	Y644	TYPE	COLOR	MD6	OUR840	Y29B ⑤	Y34B	Y35 ①	Y39	Y750 ①	Y45 ②	Y46 ③	Y48	Y60BHU	
21			1 CRIMP	DIE SET	YELLOW						U35RT	U35RT	U35RT	U35RT			
				NEST INDENTOR											C35D		
22			1 CRIMP	DIE SET	GREEN					U36RT	U36RT	U36RT	U36RT	C36R	L36RT		
				NEST INDENTOR										P36D	C36D		
23			1 CRIMP	DIE SET	ORANGE										C37R		
				NEST INDENTOR											C37D		
24			1 CRIMP	DIE SET	BLACK					U39RT	U39RT	S39RT	P39RT	C39R	L39RT		
				NEST INDENTOR										P39D	C39D		
25			1 CRIMP	DIE SET	ORANGE								S40RT	P40RT	C40R	L40RT	
				NEST INDENTOR										P40D	C40D		
26			1 CRIMP	DIE SET	GOLD												
				NEST INDENTOR										C41D			
27			1 CRIMP	DIE SET	WHITE								S44RT	P44RT	C44R	L44RT	
				NEST INDENTOR										P44D	C44D		
28				DIE SET											C443D		
				NEST INDENTOR											Y48PR		
29				DIE SET	YELLOW									P45RT	C45R	L45RT	
				NEST INDENTOR											C45D		
30				DIE SET	ORANGE										C453D		
				NEST INDENTOR											Y48PR		
31				DIE SET	GREEN								S46RT	P46RT	C46R	L46RT	
				NEST INDENTOR										No Nest	C46D		
33				DIE SET	GRAY										Y44PR	Y48PR	
				NEST INDENTOR											C47D		
34				DIE SET	BROWN											C47R	L47RT
				NEST INDENTOR												C48D	
38		MR4C MR8G98 MR89Q MY28 Y8MRB-1	NEST INDENTOR					DV8L	BV8L	UV8L	UV8L	UV8L	UV8L	UV8L			
								Y29PL	Y34PL	Y34PL	Y34PL	Y34PL	Y34PL	Y34PL			
39	MR4C MY28	NEST INDENTOR						DV6L	BV6L	UV6L	UV6L	UV6L	UV6L	UV6L			
								Y29PL	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA			

① Cat. No. Y35P3 Adapter is required to accomodate "Y34PR" type indentor in Y35, Y39, Y750 HYTOOLS and with the P-UADP-1 adapter in the Y46 and with the PT6515 adapter in the Y45.

② Cat. No. PT6515 Adapter is required to use "U" type dies in Y45 series tools.

③ Cat. No. PUADP-1 Adapter is required to use "U" type dies in Y46 series tools.

⑤ Also pneumatic version Y29NC.



## PRESENT INSTALLATION TOOL INDEX (CONTINUED)

DIE		DIELESS TOOLS		INSTALLATION TOOLING USING DIES												
GROOVE		MECH.	HYDR.	DIE INFORMATION		MECHANICAL		HYDRAULIC								
BURNDY	EEI	MR, MY	Y644	TYPE	COLOR	MD6	OUR840	Y29B ⑤	Y34B	Y35 ①	Y39	Y750 ①	Y45 ②	Y46 ③	Y48	Y60BHU
40		MR4C MY28		NEST INDENTOR				DV4L	BV4L	UV4L	UV4L	UV4L	UV4L	UV4L	UV4L	
								Y29PL	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA	
41		MY28		NEST INDENTOR				DV2L	BV2L	UV2L	UV2L	UV2L	UV2L	UV2L	UV2L	
								Y29PL	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA	
42		MY28		NEST INDENTOR				DV1L	BV1L	UV1L	UV1L	UV1L	UV1L	UV1L	UV1L	
								Y29PL	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA	Y34PLA	
43		MY28		NEST INDENTOR				DV25L	BV25L	UV25L	UV25L	UV25L	UV25L	UV25L	UV25L	
								Y29PL	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	
44		MY28		NEST INDENTOR				DV26L	BV26L	UV26L	UV26L	UV26L	UV26L	UV26L	UV26L	
								Y29PL	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	
45		MY28		NEST INDENTOR				BV27L	UV27L	UV27L	UV27L	UV27L	UV27L	UV27L	UV27L	
								Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	
46	MY28			NEST INDENTOR				BV28L	UV28L	UV28L	UV28L	UV28L	UV28L	UV28L	UV28L	
								Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	Y34PA	
49				DIE SET	RED	W8CRT		*	U8CRT	U8CRT	U8CRT	U8CRT	U8CRT	U8CRT	U8CRT	
161				DIE SET		W161	X-161		U161	U161	U161	U161	U161	U161	U161	
162				DIE SET		W162	W162		U162	U162	U162	U162	U162	U162	C162	
163 505				DIE SET		W163	W163		U163	U163	U163	U163	U163	U163	C163	
164 275				DIE SET		W164			U164	U164	U164	U164	U164	U164	C164	
165 205,287 339				DIE SET		W165	X-165		U165/ U205	U165/ U205	U165/ U205	U165/ U205	U165/ U205	U165/ U205	C165	L165
166 206,459				DIE SET		W166			U166/ U459	U166/ U459	U166/ U459	U166/ U459	U166/ U459	U166/ U459	C166	L166
167 207,211 256,568				DIE SET		W167			U167/ U568	U167/ U568	U167/ U568	U167/ U568	U167/ U568	U167/ U568	C167	L167
168 208				DIE SET					U168	U168	U168	U168	U168	U168	C168	L168
169				DIE SET					U169	U169	U169	U169	U169	U169	C169	L169
170 306				DIE SET					U170	U170	U170	U170	U170	U170	C170	L170
171				DIE SET		W171			U171	U171	U171	U171	U171	U171		
193				DIE SET					U193	U193	U193	U193	U193	U193	C193	L193
202				DIE SET					U202	U202	U202	U202	U202	U202		
203				DIE SET					U203	U203	U203	U203	U203	U203		
204				DIE SET					U204	U204	U204	U204	U204	U204		
205 165,287 339				DIE SET			X-165		U165/ U205	U165/ U205	U165/ U205	U165/ U205	U165/ U205	U165/ U205		
206 166 459				DIE SET		W166			U166/ U459	U166/ U459	U166/ U459	U166/ U459	U166/ U459	U166/ U459		L166
207 167,211 256,568				DIE SET		W167			U167/ U568	U167/ U568	U167/ U568	U167/ U568	U167/ U568	U167/ U568	C167	L167
208 168				DIE SET					U168	U168	U168	U168	U168	U168	C168	L168
209				DIE SET					U209	U209	U209	U209	U209	U209	C209	L209
210				DIE SET					U210	U210	U210	U210	U210	U210	C210	L210

① Cat. No. Y35P3 Adapter is required to accommodate "Y34PR" type indentor in Y35, Y39, Y750 HYTOOLS and with the P-UADP-1 adapter in the Y46 and with the PT6515 adapter in the Y45.

② Cat. No. PT6515 Adapter is required to use "U" type dies in Y45 series tools.

③ Cat. No. PUADP-1 Adapter is required to use "U" type dies in Y46 series tools.

④ Also pneumatic version Y29NC.

\* Add Nest (BV8L) & Indentor (Y34PL) for Y34B.



## PRESENT INSTALLATION TOOL INDEX (CONTINUED)

DIE		DIELESS TOOLS		INSTALLATION TOOLING USING DIES												
GROOVE		MECH.	HYDR.	DIE INFORMATION		MECHANICAL		HYDRAULIC								
BURNDY	EEI	MR, MY	Y644	TYPE	COLOR	MD6	OUR840	Y29B ⑤	Y34B	Y35 ①	Y39	Y750 ①	Y45 ②	Y46 ③	Y48	Y60BHU
211 167, 211 256, 568				DIE SET		W167				U167/ U568	U167/ U568	U167/ U568	U167/ U568	U167/ U568	C167	L167
236				DIE SET		W236				U236	U236	U236	U236	U236		
237				DIE SET		W237	X-237			U237	U237	U237	U237	U237		
238				DIE SET		W238				U238	U238	U238	U238	U238		
239				DIE SET		W239	X-239			U239	U239	U239	U239	U239		
240				DIE SET	RED	W240				U240	U240	U240	U240	U240		
241				DIE SET		W241	X-241			U241	U241	U241	U241	U241		
242 244	3S/ 4S			DIE SET		W242				U242	U242	U242	U242	C242	L242	
243	8A			DIE SET		W243				U243	U243	U243	U243	C243	L243	
244 242	3S			DIE SET		W242				U242	U242	U242	U242	C242	L242	
245	9A			DIE SET		W245	X-245			U245	U245	U245	U245	U245	C245	L245
246 248	5S			DIE SET		W248				U248	U248	U248	U248	U248	C248	L248
247				DIE SET		W247	X-247			U247	U247	U247	U247	U247	C247	L247
248 246	5S			DIE SET		W248				U248	U248	U248	U248	C248	L248	
249	11A			DIE SET		W249	X-249			U249	U249	U249	U249	U249	C249	L249
250				DIE SET						U250	U250	U250	U250	U250	C250	L250
251	12A			DIE SET	RED	W251				U251	U251	U251	U251	U251	C251	L251
252				DIE SET						U252	U252	U252	U252	U252	C252	L252
253				DIE SET						U253	U253	U253	U253	U253	C253	L253
254				DIE SET									S254	P254	C254	L254
255				DIE SET						U255	U255	U255	U255	U255	C255	L255
256 167, 207 211, 568				DIE SET		W167				U167/ U568	U167/ U568	U167/ U568	U167/ U568	U167/ U568	C167	L167
257				DIE SET						U257	U257	U257	U257	U257	C257	L257
259				DIE SET						U259	U259	U259	U259	U259		
260				DIE SET										C260	L260	
261 318	15A			DIE SET						U261	U261	U261	U261	U261	C261	L261
263				DIE SET						U263	U263	U263	U263	U263		
267				DIE SET						U267	U267	U267	U267	U267	C267	L267
275 164				DIE SET		W164				U164	U164	U164	U164	U164	C164	
276				DIE SET						U276	U276	U276	U276	U276		
285				DIE SET						U285	U285	U285	U285	U285		
287 165, 205 339				DIE SET		W165				U165/ U205	U165/ U205	U165/ U205	U165/ U205	U165/ U205		L165
292 578				DIE SET									S292	P292	C292	L292
293 294				DIE SET									S293	P293	C293	L293
296		MY29-3	1 CRIMP	DIE SET	TAN					U25ART	U25ART	U25ART	U25ART	U25ART	C25AR	
				NEST INDENTER										P27D		
297		MY29-3	1 CRIMP	DIE SET	OLIVE					U26ART	U26ART	U26ART	U26ART	U26ART	C26AR	
				NEST INDENTER										P29D		
													P34PR5			

① Cat. No. Y35P3 Adapter is required to accomodate "Y34PR" type indentor in Y35, Y39, Y750 HYTOOLS and with the P-UADP-1 adapter in the Y46 and with the PT6515 adapter in the Y45.

② Cat. No. PT6515 Adapter is required to use "U" type dies in Y45 series tools.

③ Cat. No. PUADP-1 Adapter is required to use "U" type dies in Y46 series tools.

⑤ Also pneumatic version Y29NC.



## PRESENT INSTALLATION TOOL INDEX (CONTINUED)

DIE		DIELESS TOOLS		INSTALLATION TOOLING USING DIES												
GROOVE		MECH.	HYDR.	DIE INFORMATION		MECHANICAL		HYDRAULIC								
BURNDY	EEI	MR, MY	Y644	TYPE	COLOR	MD6	OUR840	Y29B ⑤	Y34B	Y35 ①	Y39	Y750 ①	Y45 ②	Y46 ③	Y48	Y60BHU
298		MY29-3	1 CRIMP	DIE SET	WHITE					U28ART	U28ART	U28ART	U28ART	U28ART	C28AR	L28ART
				NEST INDENTOR										P31D		
				DIE SET	BROWN					U31ART	U31ART	U31ART	U31ART	U31ART	C31AR	L31ART
299			1 CRIMP	NEST INDENTOR										P35D	C35D	
				DIE SET	PINK					U34ART	U34ART	U34ART	U34ART	U34ART	C34AR	L34ART
				NEST INDENTOR										P39D	C39D	
300			1 CRIMP	DIE SET	RED									S39ART	P39ART	C39AR⑥ L39ART
				NEST INDENTOR										P45D	C45D	
				DIE SET	BROWN									P48PR1	Y48PR1	
302			1 CRIMP	NEST INDENTOR										No Nest	C46D	
				DIE SET										P48PR1	Y48PR1	
304				DIE SET						U304	U304	U304	U304	U304	C304	L304
305 341				DIE SET						U305	U305	U305	U305	U305	C305	L305
306 170				DIE SET						U170	U170	U170	U170	U170	C170	L170
308				DIE SET						U308	U308	U308	U308	U308		
313				DIE SET						U313	U313	U313	U313	U313	C313	L313
314 376				DIE SET											C314	L314
316				DIE SET						U316	U316	U316	U316	U316	C316	L316
317 426				DIE SET						U317	U317	U317	U317	U317	C317	L317
318 261				DIE SET						U261	U261	U261	U261	U261	C261	L261
319				DIE SET										S319	P319	C319 L319
320				DIE SET										S320	P320	C320 L320
321				DIE SET						U321	U321	U321	U321	U321	C321	L321
322				DIE SET						U322	U322	U322	U322	U322		
324			1 CRIMP	DIE SET	RED					U29ART	U29ART	U29ART	U29ART	U29ART	C29AR	L29ART
				NEST INDENTER										P32D		
				DIE SET										P34PR5		
326 538				DIE SET						U33RT	U33RT	U33RT	U33RT	U33RT		
327 14A				DIE SET						U327	U327	U327	U327	U327	C327	L327
328				DIE SET											C328	L328
329				DIE SET						U329	U329	U329	U329	U329		
331				DIE SET						U331	U331	U331	U331	U331		
339 165, 205 287				DIE SET		X-339				U165/ U205						
341 305				DIE SET						U305	U305	U305	U305	U305	C305	L305
342				DIE SET										S342	P342	C342 L342
344				DIE SET											C344	L344
345				DIE SET											C345	L345
346 ⑦		1 CRIMP	DIE SET	GRAY						U6CABT	U6CABT	U6CABT	U6CABT	U6CABT		

① Cat. No. Y35P3 Adapter is required to accomodate "Y34PR" type indentor in Y35, Y39, Y750 HYTOOLS and with the P-UADP-1 adapter in the Y46 and with the PT6515 Adapter in the Y45.

② Cat. No. PT6515 Adapter is required to use "U" type dies in Y45 series tools.

③ Cat. No. PUADP-1 Adapter is required to use "U" type dies in Y46 series tools.

④ The MD6-6R2 ratchet tool is required on these sizes. The standard MD6 or MD6R ratchet tools will not work.

⑤ Also pneumatic version Y29NC.

⑥ Use C39AR round die 301 for 1.60 O.D. barrel. Use C39AR-2 hex die 936 for 1.46 O.D. barrel.

⑦ Hexagonal crimp.

⑧ Die 302 recommended for 1.84 O.D. barrel.



## PRESENT INSTALLATION TOOL INDEX (CONTINUED)

DIE		DIELESS TOOLS		INSTALLATION TOOLING USING DIES												
GROOVE		MECH.	HYDR.	DIE INFORMATION		MECHANICAL			HYDRAULIC							
BURNDY	EEI	MR, MY	Y644	TYPE	COLOR	MD6	OUR840	Y29B	Y34B	Y35 ①	Y39	Y750 ①	Y45 ②	Y46 ③	Y48	Y60BHU
348		1 CRIMP		DIE SET	PINK					U2CABT	U2CABT	U2CABT	U2CABT	U2CABT		
350				DIE SET						U350	U350	U350	U350	U350	C350	L350
352				DIE SET								S352	P352	C352	L352	
373				DIE SET					U373	U373	U373	U373	U373			
374		MY29-3		DIE SET	BLUE					U8CABT	U8CABT	U8CABT	U8CABT	U8CABT		
375		MY29-3	1 CRIMP	DIE SET	GREEN					U4CABT	U4CABT	U4CABT	U4CABT	U4CABT		
376 314				DIE SET											C314	L314
403				DIE SET						U403	U403	U403	U403	U403		
419				DIE SET								S419	P419	C419	L419	
422				DIE SET												L422
426 317				DIE SET					U317	U317	U317	U317	U317	U317	U317	
459 166				DIE SET						U166/459	U166/459	U166/459	U166/459	U166/459		
467	MY29-3	1 CRIMP		DIE SET	RUBY					U27ART	A27ART	U27ART	U27ART	U27ART	C27AR	
				NEST INDENTOR										P30D		
468				DIE SET						U468	U468	U468	U468	U468		
469				DIE SET								S469	P469	C469	L469	
470		1 CRIMP		DIE SET	BLUE					U30ART	U30ART	U30ART	U30ART	U30ART	C30AR	L30ART
				NEST INDENTOR										P34D	C34D	
471	MY29-3	1 CRIMP		DIE SET	GOLD					U1CART	U1CART	U1CART	U1CART	U1CART		
				NEST INDENTOR										P48PR1	Y48PR1	
472		1 CRIMP		DIE SET	GREEN					U32ART	U32ART	U32ART	U32ART	U32ART	C32AR	L32ART
				NEST INDENTOR										P35D	C35D	
473		1 CRIMP		DIE SET	BLACK					U36ART	U36ART	U36ART	U36ART	U36ART	C36AR	L36ART
				NEST INDENTOR										P44D	C44D	
474		1 CRIMP		DIE SET	GOLD								S40ART	P40ART	C40AR	L40ART
				NEST INDENTOR										C45D		Y48PR1
478		1 CRIMP		DIE SET	BLUE										C46AR	L46ART
				NEST INDENTOR										C46AD		Y48PR11
479				DIE SET	RED											L48ART
490 547				DIE SET						U490	U490	U490	U490	U490	C490	L490
495				DIE SET											C495	L495
505 163				DIE SET		W163				U163	U163	U163	U163	U163		L163
511	MY29-3			NEST INDENTOR					B6CD							
									Y34PA							
512	MY29-3			NEST INDENTOR					B4CD							
									Y34PA							
513	MY29-3			NEST INDENTOR					B1CD							
									Y34PA							
514	MY29-3			NEST INDENTOR					B26D							
									Y34PA							

① Cat. No. Y35P3 Adapter is required to accomodate "Y34PR" type indentor in Y35, Y39, Y750 HYTOOLS and with the P-UADP-1 adapter in the Y46 and with the PT6515 adapter in the Y45.

② Cat. No. PT6515 Adapter is required to use "U" type dies in Y45 series tools.

③ Cat. No. PUADP-1 Adapter is required to use "U" type dies in Y46 series tools.

④ The MD6-6R2 ratchet tool is required on these sizes. The standard MD6 or MD6R ratchet tools will not work.

⑤ Also pneumatic version Y29NC.

⑥ Hexagonal crimp.



## PRESENT INSTALLATION TOOL INDEX (CONTINUED)

DIE		DIELESS TOOLS		INSTALLATION TOOLING USING DIES													
GROOVE		MECH.	HYDR.	DIE INFORMATION		MECHANICAL		HYDRAULIC									
BURNDY	EEI	MR, MY	Y644	TYPE	COLOR	MD6	OUR840	Y29B ⑤	Y34B	Y35 ①	Y39	Y750 ①	Y45 ②	Y46 ③	Y48	Y60BHU	
515		MY29-3		NEST INDENTOR					B26D								
									Y34PR5								
516		MY29-3		NEST INDENTOR					B27D								
									Y34PR5								
517		MY29-3		NEST INDENTOR					B29D								
									Y34PR5								
518		MY29-3		NEST INDENTOR					B30D								
									Y34PR5								
519		MY29-3		NEST INDENTOR					B31D								
									Y34PR5								
520		MY29-3		NEST INDENTOR					B32D								
									Y34PR5								
521				NEST INDENTOR					No Nest						C34D		
									Y34PR11							Y48PR-1	
522				NEST INDENTOR											C35D		
																Y48PR-1	
523				NEST INDENTOR											C35D		
																Y48PR-1	
524				NEST INDENTOR											C39D		
																Y48PR-1	
525				NEST INDENTOR											C44D		
																Y48PR-1	
526				NEST INDENTOR											C45D		
																Y48PR-1	
527				NEST INDENTOR											C45D		
																Y48PR-1	
528				NEST INDENTOR											C46D		
																Y48PR-1	
529				NEST INDENTOR											C46AD		
																Y48PR-11	
538 326				DIE SET						U33RT	U33RT	U33RT	U33RT	U33RT			
547 490				DIE SET						U490	U490	U490	U490	U490	C490	L490	
552				DIE SET						U552	U552	U552	U552	U552			
568 167, 207 211, 256				DIE SET		W167			U167/ U568	U167/ U568	U167/ U568	U167/ U568	U167/ U568				
575				DIE SET											C575	L575	
576				DIE SET											C576	L576	
578 292				DIE SET										S292	P292	C292	L292
579				DIE SET										S579	P579	C579	L579
587				DIE SET												L47ART	
607				DIE SET					U607	U607	U607	U607	U607				
608				DIE SET					U608	U608	U608	U608	U608	C608	L608		
609				DIE SET					U609	U609	U609	U609	U609	C609			
627				DIE SET											C627	L627	
642				DIE SET					U642	U642	U642	U642	U642	C642	L642		
643				DIE SET					U643	U643	U643	U643	U643				
647 ⑤				DIE SET											C45AR	L45ART	

① Cat. No. Y35P3 Adapter is required to accomodate "Y34PR" type indentor in Y35, Y39, Y750 HYTOOLs and with the P-UADP-1 adapter in the Y46 and with the PT6515 adapter in the Y45.

② Cat. No. PT6515 Adapter is required to use "U" type dies in Y45 series tools.

③ Cat. No. PUADP-1 Adapter is required to use "U" type dies in Y46 series tools.

④ Also pneumatic version Y29NC.

⑤ Die 302 recommended for 1.84 O.D. barrel.



## PRESENT INSTALLATION TOOL INDEX (CONTINUED)

DIE		DIELESS TOOLS		INSTALLATION TOOLING USING DIES														
GROOVE		MECH.	HYDR.	DIE INFORMATION		MECHANICAL			HYDRAULIC									
BURNDY	EEI	MR, MY	Y644	TYPE	COLOR	MD6	OUR840	Y29B <sup>⑤</sup>	Y34B	Y35 <sup>①</sup>	Y39	Y750 <sup>①</sup>	Y45 <sup>②</sup>	Y46 <sup>③</sup>	Y48	Y60BHU		
648				DIE SET													L648	
654				DIE SET	PURPLE					U654	U654	U654	U654	P654			L654	
655	13A			DIE SET						U655	U655	U655	U655	U655				
658				DIE SET						U658	U658	U658	U658	U658				
659				DIE SET		W659				U659	U659	U659	U659	U659				
660				DIE SET		W660	X-660			U660	U660	U660	U660	U660				
667				DIE SET											C667	L667		
668				DIE SET						U668	U668	U668	U668	U668				
676				DIE SET						U676	U676	U676	U676	U676				
677				DIE SET						U677	U677	U677	U677	U677			L677	
678				DIE SET						U678	U678	U678	U678	U678				
679				DIE SET						U679	U679	U679	U679	U679				
684				DIE SET												L684		
687				DIE SET		W687	X-687											
690	1S			DIE SET		W690				U690	U690	U690	U690	U690				
691	2S			DIE SET		W691				U691	U691	U691	U691	U691				
692	4S			DIE SET		W692				U692	U692	U692	U692	U692				
693	6A			DIE SET		W693				U693	U693	U693	U693	U693				
694	10A			DIE SET		W694				U694	U694	U694	U694	U694				
702				DIE SET		W702												
705				DIE SET						U705	U705	U705	U705	U705				
717 <sup>⑦</sup>				DIE SET									S717	P717		L717		
718 <sup>⑦</sup>				DIE SET												L718		
719 <sup>⑦</sup>				DIE SET									S719	P719		L719		
720 <sup>⑦</sup>				DIE SET									S720	P720		L720		
721 <sup>⑦</sup>				DIE SET												L721		
722 <sup>⑦</sup>				DIE SET									S722	P722	C722	L722		
723 <sup>⑦</sup>				DIE SET											C723	L723		
724 <sup>⑦</sup>				DIE SET									S724	P724	C724	L724		
725 <sup>⑦</sup>				DIE SET									S725	P725	C725	L725		
726 <sup>⑦</sup>				DIE SET												L726		
727 <sup>⑦</sup>				DIE SET												L727		
728 <sup>⑦</sup>				DIE SET												L728		
729 <sup>⑦</sup>				DIE SET												L729		
735 <sup>⑦</sup>				DIE SET												L735		
740 <sup>⑦</sup>				DIE SET												L740		
786				DIE SET						U786	U786	U786	U786	U786				
788				DIE SET						U788	U788	U788	U788	U788				
789				DIE SET												L789		
936 <sup>⑦</sup>		1 CRIMP		DIE SET	YELLOW					U39ART-2	U39ART-2	U39ART-2	U39ART-2	U39ART-2	C39ART-2	L39ART-2		
997				DIE SET	ORANGE					U997	U997	U997	U997	U997				
998				DIE SET									PU998	S998	P998			
999				DIE SET										S999	P999			
1011				DIE SET									U1011	S1011	P1011			
1012				DIE SET										S1012				
1013		MY29-11		NEST INDENTOR						UV8L	UV8L	UV8L	UV8L	UV8L				
										Y34PL	Y34PL	Y34PL	Y34PL	Y34PL				

<sup>①</sup> Cat. No. Y35P3 Adapter is required to accomodate "Y34PR" type indentor in Y35, Y39, Y750 HYTOOLs and with the P-UADP-1 adapter in the Y46 and with the PT6515 adapter in the Y45.

<sup>②</sup> Cat. No. PT6515 Adapter is required to use "U" type dies in Y45 series tools.

<sup>③</sup> Cat. No. PUADP-1 Adapter is required to use "U" type dies in Y46 series tools.

<sup>④</sup> The MD6-6R ratchet tool is required on these sizes. The standard MD6 or MD6R ratchet tools will not work.

<sup>⑤</sup> Also pneumatic version Y29NC.

<sup>⑥</sup> Use C39AR round die 301 for 1.60 O.D. barrel. Use C39AR-2 hex die 936 for 1.46 O.D. barrel.

<sup>⑦</sup> Hexagonal crimp.



## PRESENT INSTALLATION TOOL INDEX (CONTINUED)

DIE		DIELESS TOOLS		INSTALLATION TOOLING USING DIES													
GROOVE		MECH.	HYDR.	DIE INFORMATION		MECHANICAL		HYDRAULIC									
BURNDY	EEI	MR, MY	Y644	TYPE	COLOR	MD6	OUR840	Y29B <sup>⑤</sup>	Y34B	Y35 ①	Y39	Y750 ①	Y45 ②	Y46 ③	Y48B	Y60BHU	
1014		MY29-11		NEST INDENTOR						U6CD1	U6CD1	U6CD1	U6CD1	U6CD1			
										Y34PR	Y34PR	Y34PR	Y34PR	Y34PR			
1015		MY29-11		NEST INDENTOR						U4CD1	U4CD1	U4CD1	U4CD1	U4CD1			
										Y34PR	Y34PR	Y34PR	Y34PR	Y34PR			
1016		MY29-11		NEST INDENTOR						U3CD1	U3CD1	U3CD1	U3CD1	U3CD1			
										Y34PR	Y34PR	Y34PR	Y34PR	Y34PR			
1017		MY29-11		NEST INDENTOR						U2CD1	U2CD1	U2CD1	U2CD1	U2CD1			
										Y34PR	Y34PR	Y34PR	Y34PR	Y34PR			
1018		MY29-11		NEST INDENTOR						U1CD1	U1CD1	U1CD1	U1CD1	U1CD1			
										Y34PR	Y34PR	Y34PR	Y34PR	Y34PR			
1019		MY29-11		NEST INDENTOR						U25D1	U25D1	U25D1	U25D1	U25D1			
										Y34PR2	Y34PR2	Y34PR2	Y34PR2	Y34PR2			
1020		MY29-11		NEST INDENTOR						U26D1	U26D1	U26D1	U26D1	U26D1			
										Y34PR2	Y34PR2	Y34PR2	Y34PR2	Y34PR2			
1021		MY29-11		NEST INDENTOR						U27D1	U27D1	U27D1	U27D1	U27D1			
										Y34PR2	Y34PR2	Y34PR2	Y34PR2	Y34PR2			
1022		MY29-11		NEST INDENTOR						U28D1	U28D1	U28D1	U28D1	U28D1			
										Y34PR2	Y34PR2	Y34PR2	Y34PR2	Y34PR2			
1023		MY29-11		NEST INDENTOR						U29D1	U29D1	U29D1	U29D1	U29D1			
										Y34PR2	Y34PR2	Y34PR2	Y34PR2	Y34PR2			
1024				NEST INDENTOR						U30D1	U30D1	U30D1	U30D1	U30D1			
										Y34PR2	Y34PR2	Y34PR2	Y34PR2	Y34PR2			
1025				NEST INDENTOR						U31D1	U31D1	U31D1	U31D1	U31D1			
										Y34PR2	Y34PR2	Y34PR2	Y34PR2	Y34PR2			
1026				NEST INDENTOR						U32D1	U32D1	U32D1	U32D1	U32D1			
										Y34PR2	Y34PR2	Y34PR2	Y34PR2	Y34PR2			
1027				NEST INDENTOR						U34D1	U34D1	U34D1	U34D1	U34D1			
										Y34PR2	Y34PR2	Y34PR2	Y34PR2	Y34PR2			
1028				NEST INDENTOR										P36D	C36D		
														P48PR1	Y48PR1		
1029				NEST INDENTOR										P38D	C38D		
														P48PR1	Y48PR1		
1030				NEST INDENTOR										P39D	C39D		
														P48PR1	Y48PR1		
1031				NEST INDENTOR										P40D	C40D		
														P48PR1	Y48PR1		
1032				NEST INDENTOR										P44D	C44D		
														P48PR1	Y48PR1		
1102				DIE SET	WHITE									P1102			
1103 <sup>④</sup>				DIE SET	BLUE									P1103			
1105												U1105		P1105			
400				NEST INDENTOR	DIE SET	PURPLE				U38RT	U38RT	U38RT	U38RT	U38RT			
										U27B	U27B	U27B			C38D		
2000				NEST INDENTOR						Y34PR15	Y34PR15	Y34PR15			Y48PR		

<sup>①</sup> Cat. No. Y35P3 Adapter is required to accomodate "Y34PR" type indentor in Y35, Y39, Y750 HYTOOLS and with the P-UADP-1 adapter in the Y46 and with the PT6515 adapter in the Y45.

<sup>②</sup> Cat. No. PT6515 Adapter is required to use "U" type dies in Y45 series tools.

<sup>③</sup> Cat. No. PUADP-1 Adapter is required to use "U" type dies in Y46 series tools.

<sup>④</sup> Index 11104, diest, brown, U1104, P1104.

<sup>⑤</sup> Also pneumatic version Y29NC.

Available in PIBEAM KIT


**CATALOG NUMBERS  
REQUIRING MSDS**

POWERCELL	PENA13-3	PENE-8
PENA-3	PENA13-4	PENE-PT
PENA-4	PENA13-8	PENE QT
P8A	PENA13PT	PENE GAL
PENA 1LB	PENA13QT	PENE 5GAL
PENA PT	PENA13GAL	PENE 55GAL
PENA QT	PENA13 5GAL	ALFLUID QT
PENA GAL	PENA13 55GAL	ALFLUID GAL
PENA 5GAL	PENE-3	HYFLUID QT
PENA 55GAL	PENE-4	HYFLUID GAL

\* All Wejtap catalog numbers ending in PB require MSDS for Power Cell.

**COLOR CODING FOR  
OVERHEAD CONNECTORS**

COLOR CODE	ALUMINUM & COPPER			
	STR	COMPACT	SOL	ASCR
BROWN	10		8	
GREEN	8		6	
BLUE	5, 6		4	6
ORANGE	3, 4	#2	2	4
RED	1-19, 2	1/0	1	2
YELLOW	1/0	2/0		1/0, 1
GRAY	2/0	3/0		2/0
BLACK	3/0	4/0		3/0
PINK	4/0	266, 300		4/0
RED	250			
WHITE	266			
BLUE	300	350		266.8 (26/7, 18/1)
BROWN	336			
GREEN	350, 397, 400			336.4 (26/7, 18/1)
GRAY	450			
PINK	500			477 (18/1)
GREEN	556			
PURPLE	600			
YELLOW				556.5 (24/7, 26/7)
BLUE	650			
RED	700			
YELLOW	750			
ORANGE	800			
WHITE	900			
BROWN	1000			

NOTE: This chart is only intended as a guide, for specific applications refer to your catalog.  
For connectors with a range, the color is keyed by the largest conductor.



## COLOR CODING FOR AL/CU CONNECTORS

COLOR CODE	STR	COLOR CODE	STR
BLUE	8	BLUE	300
GRAY	6	BROWN	350
GREEN	4	GREEN	400
PINK	2	PINK	500
GOLD	1	BLACK	600
TAN	1/0	YELLOW	700/750
OLIVE	2/0	RED	700/750
RUBY	3/0	BROWN	1000
WHITE	4/0	BLUE	1500
RED	250	RED	2000

NOTE: This chart is only intended as a guide. For specific applications refer to your catalog.

## COLOR CODING FOR COPPER LUGS AND SPLICES

COLOR CODE	CODE SIZE		FLEX CABLE
	STR	SOL	
RED	8	6	8
BLUE	6		6
BLUE	5		
GRAY	4		4
WHITE	3	2	
BROWN	2		2
GREEN	1		1
PINK	1/0		1/0
BLACK	2/0		2/0
ORANGE	3/0		3/0
PURPLE	4/0		4/0
YELLOW	250		250
WHITE	300		250
RED	350		313.1
BLUE	400		373.7
BROWN	500		444.4
GREEN	600		
PINK	700		535.3
PURPLE			600
BLACK	750		646
YELLOW			777.7
ORANGE	800		
WHITE	1000		
YELLOW			1111
GREEN	1500		
BROWN	2000		

NOTE: This chart is only intended as a guide. For specific applications refer to your catalog.